GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: February 5, 2004, 16:22:11 ; Search time 41 Seconds
(without alignments)
1025.916 Million cell updates/sec

Title: US-09-990-726-223
Perfect score: 1409
Sequence: 1 MGLPGLFCLAVLAASSFSKA.....EFGGFRIGNGEVRGRKAAAM 265

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 1107863 seqs, 158726573 residues

Total number of hits satisfying chosen parameters: 1107863

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 150 summaries

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	1409	100.0	265	21	AAB24063	Human PRO809 prote
2	1409	100.0	265	21	AAY66691	Membrane-bound pro
3	1409	100.0	265	22	AAB65214	Human PRO809 (UNQ4
4	1409	100.0	265	23	AAU83666	Human PRO protein,
5	1409	100.0	265	24	ABU59107	Novel human secret
6	1409	100.0	265	24	ABU59254	Human secreted/tra
7	1409	100.0	265	24	ABU59403	Novel human secret
8	1409	100.0	265	24	ABU60538	Human secreted/tra
9	1409	100.0	265	24	ABU58029	Human PRO polypept
10	1409	100.0	265	24	ABU58960	Human sectreted/tr
11	1409	100.0	265	24	ABU13920	Human PRO809 polyp
12	1409	100.0	265	24	ABU10875	Human PRO polypept
13	1149	81.5	247	22	AAG89176	Human secreted pro
14	725.5	51.5	232	22	AAM24472	Human EST encoded
15	654.5	46.5	235	24	ABJ19682	Human secreted pro
16	654.5	46.5	235	24	ABP99572	Human secreted pro
17	654.5	46.5	236	21	AAB39216	Human secreted pro
18	636	45.1	175	22	AAU21256	Human novel foetal
19	114.5	8.1	759	22	AAB82313	Human immunoglobul
20	110.5	7.8	977	22	AAB82315	Human immunoglobul
21	105	7.5	508	22	AAB82317	Human immunoglobul
22	101.5	7.2	343	20	AAY27129	Human bone marrow-
23	101.5	7.2	343	20	AAY27130	Human bone marrow-
24	101.5	7.2	343	21	AAY95966	Human TANGO 228.
25	101.5	7.2	362	22	ABB10224	Human cDNA SEQ ID
26	101.5	7.2	362	22	AAU18018	Human immunoglobul
27	101.5	7.2	362	23	ABP66811	Human polypeptide
28	101.5	7.2	366	22	AAM25703	Human protein sequ
29	101.5	7.2	385	23	ABG96265	Human immunoglobul
30	101	7.2	571	17	AAR94894	CD31 fragment (dom
31	101	7.2	592	22	AAB82314	Human immunoglobul
32	100	7.1	727	24	ABB84668	Human SECP-20 prot
33	100	7.1	734	22	AAB82316	Human immunoglobul
34	99.5	7.1	31267	24	ABG74786	Human RGS11 protei
35	98.5	7.0	222	23	ABP69283	Human polypeptide
36	98	7.0	738	12	AAR13251	PECAM-1. Homo sap
37	98	7.0	738	18	AAW14802	PECAM-1. Homo sap
38	98	7.0	738	21	AAB07652	A platelet-endothe
39	98	7.0	738	22	AAB65866	Human PECAM-1 prot
40	97.5	6.9	474	17	AAR94893	CD31 fragment (dom
41	97.5	6.9	506	22	ABG10463	Novel human diagno
42	97.5	6.9	547	14	AAR39741	ICAM-R (Intercellu
43	97.5	6.9	547	19	AAW76118	Human ICAM-R prote
44	97.5	6.9	547	19	AAW71252	Human intercellula
45	97.5	6.9	547	19	AAW59005	Human ICAM-R prote
46	97.5	6.9	547	19	AAW44838	Human ICAM-4 prote
47	97.5	6.9	547	20	AAY00779	Human ICAM-R prote
48	97.5	6.9	547	20	AAW81440	Human intercellula
49	97.5	6.9	547	21	AAB13036	Human ICAM-R prote
50	97.5	6.9	547	21	AAY82435	Human ICAM-R encod
51	97.5	6.9	547	21	AAY50743	Human ICAM-R prote
52	97.5	6.9	547	22	AAB50095	Human ICAM-R. Hom
53	97.5	6.9	547	23	AAU70928	Intercellular adhe
54	97	6.9	4391	24	AAE34390	Human perlecan pro
55	95.5	6.8	429	22	AAB82318	Human immunoglobul
56	94	6.7	327	23	ABP63021	Human polypeptide
57	94	6.7	549	21	AAB58139	Lung cancer associ
58	93	6.6	319	18	AAW14146	Human A33 antigen.
59	93	6.6	319	20	AAY23323	Amino acid sequenc
60	93	6.6	319	22	AAB65863	Human A33 protein
61	93	6.6	336	23	ABP62881	Human polypeptide
62	93	6.6	793	23	AAE14781	Human immunoglobul
63	93	6.6	898	22	ABG12152	Novel human diagno
64	92.5	6.6	1700	23	ABB05044	Human NOV6 protein
65	91.5	6.5	301	23	ABR40465	Human secreted pro
66	91.5	6.5	303	23	ABP62033	Human secreted pro
67	91.5	6.5	304	20	AAY12934	Amino acid sequenc
68	91.5	6.5	318	18	AAW14158	Mouse A33 antigen.
69	91.5	6.5	480	22	AAU00501	Human TANGO 330 fo
70	91.5	6.5	985	20	AAY41716	Human PRO860 prote
71	91.5	6.5	985	21	AAB44272	Human PRO860 (UNQ4
72	91.5	6.5	985	24	ABU61102	Human PRO860 polyp
73	91.5	6.5	1007	23	ABB97310	Novel human protei
74	91.5	6.5	1104	23	AAU99419	Human ECSM4 protei
75	91	6.5	4393	22	AAB31889	Amino acid sequenc
76	91	6.5	4436	22	ABG23265	Novel human diagno
77	90.5	6.4	562	10	AAP80458	Sequence of human
78	90.5	6.4	562	24	ABU04062	Human expressed pr
79	90.5	6.4	1256	22	AAB84865	Murine nephrin pro
80	90.5	6.4	1618	22	AAB59829	Protein #6 encoded
81	90	6.4	370	23	AAE23555	Human FAIL protein
82	90	6.4	892	24	ABP96857	Escherichia coli X

83	89.5	6.4	868	22	ABB63905	Drosophila melanog
84	89.5	6.4	1263	23	ABP69461	Human polypeptide
85	89.5	6.4	1694	22	AAE09449	Human sbg24878SIa
86	89.5	6.4	1709	22	AAE09448	Human sbg24878SIa
87	89.5	6.4	1839	22	ABG10466	Novel human diagno
88	89	6.3	370	23	AAE23556	Human FAIL protein
89	88.5	6.3	370	23	AAE23553	Human FAIL protein
90	88.5	6.3	395	22	AAE06611	Human protein havi
91	88.5	6.3	917	18	AAW00930	Rat ICAM-4. Rattu
92	88.5	6.3	917	19	AAW60160	Rat intercellular
93	88.5	6.3	917	19	AAW59003	Rat ICAM-4 protein
94	88.5	6.3	917	19	AAW44836	Rat ICAM-4 protein
95	88.5	6.3	917	20	AAY05465	Rat ICAM-4 protein
96	88.5	6.3	917	20	AAW73512	Rat ICAM-4 protein
97	88.5	6.3	3931	24	ABU07377	Human protein NOV9
98	88	6.2	343	23	AAE23546	Human mature FAIL
99	88	6.2	370	23	AAE23544	Human FAIL protein
100	88	6.2	370	23	AAE23554	Human FAIL protein
101	88	6.2	757	19	AAW60486	Mouse TRIDENT tran
102	87.5	6.2	333	21	AAB12313	Human secreted pro
103	87.5	6.2	532	18	AAW27270	Human intracellula
104	87.5	6.2	532	24	ABU04077	Human expressed pr
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106	87.5	6.2	792	22	AAG67430	Amino acid sequenc
107	87	6.2	822	23	AAM47865	Human ICAM-1/IgA2m
108	87	6.2	5635	23	ABP60991	Novel human protei
109	86.5	6.1	532	16	AAR79457	ICAM-1. Homo sapi
110	86.5	6.1	532	24	ABU04069	Human expressed pr
111	86	6.1	264	22	ABB10330	Human cDNA SEQ ID
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113	86	6.1	2367	24	ABR38872	Human mGRR2 # SEQ
114	85.5	6.1	364	8	AAP70310	Sequence of porcin
115	85.5	6.1	364	8	AAP70199	Sequence of porcin
116	85.5	6.1	378	22	AAB51347	Bovine HS-glycopro
117	85.5	6.1	4495	24	ABU69135	Human NOVX polypep
118	85	6.0	398	24	ABG75600	Anti-angiogenic pe
119	85	6.0	405	15	AAR57140	Mouse mucosal addr
120	85	6.0	405	19	AAW60615	Mouse mucosal adre
121	85	6.0	408	22	ABG10611	Novel human diagno
122	85	6.0	518	20	AAY25966	Gorilla ICAM-3 pro
123	85	6.0	753	20	AAW83927	Human T85 protein.
124	85	6.0	753	24	ABU04090	Human expressed pr
125	85	6.0	848	21	AAY88565	Human NCAM 140kD i
126	85	6.0	848	23	AAE17222	Human 140kd NCAM i
127	85	6.0	1179	23	ABB97578	Novel human protei
128	84.5	6.0	278	23	AAE23547	Human FAIL extrace
129	84.5	6.0	305	23	AAE23557	Human FAIL protein
130	84.5	6.0	451	21	AAB58141	Lung cancer associ
131	84.5	6.0	451	24	ABU04061	Human expressed pr
132	84.5	6.0	480	11	AAR06240	Soluble intercellu
133	84.5	6.0	480	24	ABU04064	Human expressed pr
134	84.5	6.0	481	21	AAY94407	Human ICAM-1 regio
135	84.5	6.0	481	24	ABU04083	Human expressed pr
136	84.5	6.0	508	18	AAW14721	Human ICAM-1 (del4
137	84.5	6.0	508	24	ABU04076	Human expressed pr
138	84.5	6.0	532	10	AAP91357	Intercellular adhe
139	84.5	6.0	532	11	AAR04165	Inter-cellular adh
140	84.5	6.0	532	13	AAR20809	Intercellular Adhe
141	84.5	6.0	532	14	AAR35071	ICAM-1. Homo sapi
142	84.5	6.0	532	15	AAR46066	Human ICAM-1. Hom
143	84.5	6.0	532	15	AAR58779	Inter-cellular adh
144	84.5	6.0	532	17	AAR91437	Human ICAM-1. Hom
145	84.5	6.0	532	17	AAR90294	Intracellular adhe
146	84.5	6.0	532	18	AAW14720	Human ICAM-1. Hom
147	84.5	6.0	532	18	AAW09313	Human ICAM-1 (enco
148	84.5	6.0	532	19	AAW80446	Human intracellula
149	84.5	6.0	532	19	AAW70871	Intracellular adhe
150	84.5	6.0	532	19	AAW71263	Human intercellula

ALIGNMENTS

RESULT 1
AAB24063
ID AAB24063 standard; Protein; 265 AA.
XX
AC AAB24063;
XX
DT 29-JAN-2001 (first entry)
XX
DE Human PRO809 protein sequence SEQ ID NO:23.
XX
KW Human; tumour; diagnosis; neoplastic disease; neoplastic cell growth;
KW proliferation; tumourigenesis; identification; cancer; cytostatic;
KW nootropic; neuroprotective; antiinflammatory; immunosuppressive;
KW immunostimulant; antiangiogenic; leukaemia; lymphoid malignancy;
KW neuronal disorder; glial disorder; astrocytal disorder; angiogenic;
KW hypothalamic disorder; glandular disorder; macrophagal disorder;
KW epithelial disorder; stromal disorder; blastocoelic disorder;
KW inflammatory disorder; immunologic disorder.
XX
OS Homo sapiens.
XX
PN WO200053755-A2.
XX
PD 14-SEP-2000.
XX
PF 06-JAN-2000; 2000WO-US00376.
XX
PR 08-MAR-1999; 99WO-US05028.
PR 02-JUN-1999; 99WO-US12252.
PR 23-JUN-1999; 99US-0141037.
PR 07-JUL-1999; 99US-0143048.
PR 26-JUL-1999; 99US-0145698.
PR 30-NOV-1999; 99WO-US28313.
PR 20-DEC-1999; 99WO-US30911.
PR 05-JAN-2000; 2000WO-US00219.
XX
PA (GETH) GENENTECH INC.
XX
PI Ashkenazi AJ, Baker KP, Goddard A, Gurney AL, Hillan KJ, Roy MA;
PI Watanabe CK, Wood WI;
XX
DR WPI; 2000-572270/53.
DR N-PSDB; AAC58373.
XX
PT Thirty PRO polynucleotides encoding PRO polypeptides, useful in the
PT treatment, diagnosis and prevention of cancer -
XX
PS Claim 61; Fig 14; 286pp; English.
XX
CC The present invention describes an isolated antibody that binds to
CC one of the human PRO proteins designated PRO212, PRO290, PRO341, PRO535,
CC PRO619, PRO717, PRO809, PRO830, PRO848, PRO943, PRO1005, PRO1009,
CC PRO1025, PRO1030, PRO1097, PRO1107, PRO1111, PRO1153, PRO1182, PRO1184,
CC PRO1187, PRO1281, PRO23, PRO39, PRO834, PRO1317, PRO1710, PRO2094,
CC PRO2145 OR PRO2198. PRO antagonists can be used to inhibit tumour cell
CC growth. The PRO polypeptides and nucleotides are useful in the
CC treatment, diagnosis and prevention of cancer. The antibodies and other
CC anti-tumour compounds maybe used to treat various conditions, including
CC those characterised by overexpression and/or activation of the amplified
CC PRO genes. Exemplary conditions or disorders to be treated with such
CC antibodies and other compounds include benign or malignant tumours
CC (e.g., renal, liver, kidney, bladder, breast, gastric, ovarian,
CC colorectal, prostate, pancreatic, lung, vulva, thyroid, hepatic
CC carcinomas, sarcomas, glioblastomas, and various head and neck tumours),
CC leukaemias and lymphoid malignancies, other disorders such as neuronal,
CC glial, astrocytal, hypothalamic and other glandular, macrophagal,
CC epithelial, stromal and blastocoelic disorders, and inflammatory,
CC angiogenic and immunologic disorders. AAC58242 to AAC58366 represent PCR
CC primers and hybridisation probes used in the isolation of the human PRO
CC sequences. AAC58367 to AAC58396 and AAB24057 to AAB24089 represent human
CC PRO polynucleotide and protein sequences given in the exemplification of
CC the present invention.
XX

```
SQ   Sequence   265 AA;

  Query Match           100.0%;  Score 1409;  DB 21;  Length 265;
  Best Local Similarity  100.0%;  Pred. No. 2.9e-131;
  Matches  265;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MGLPGLFCLAVLAASSFSKAREEEITPVVSIAYKVLEVFPKGRWVLITCCAPQPPPPITY 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MGLPGLFCLAVLAASSFSKAREEEITPVVSIAYKVLEVFPKGRWVLITCCAPQPPPPITY 60

Qy         61 SLCGTKNIKVAKKVVKTHEPASFNLNVTLKSSPDLLTYFCRASSTSGAHVDSARLQMHWE 120
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Db         61 SLCGTKNIKVAKKVVKTHEPASFNLNVTLKSSPDLLTYFCRASSTSGAHVDSARLQMHWE 120

Qy        121 LWSKPVSELRANFTLQDRGAGPRVEMICQASSGSPPITNSLIGKDGQVHLQQRPCHRQPA 180
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Db        121 LWSKPVSELRANFTLQDRGAGPRVEMICQASSGSPPITNSLIGKDGQVHLQQRPCHRQPA 180

Qy        181 NFSFLPSQTSDWFWCQAANNANVQHSALTVVPPGGDQKMEDWQGPLESPILALPLYRSTR 240
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Qy        241 RLSEEEFGGFRIGNGEVRGRKAAAM 265
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Db        241 RLSEEEFGGFRIGNGEVRGRKAAAM 265


RESULT 2
AAY66691
ID   AAY66691 standard; protein; 265 AA.
XX
AC   AAY66691;
XX
DT   05-APR-2000  (first entry)
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DE   Membrane-bound protein PRO809.
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KW   Membrane-bound polypeptide; PRO polypeptide; LDL receptor; TIE ligand;
KW   pharmaceutical; receptor immunoadhesin; gene mapping.
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OS   Homo sapiens.
XX
PN   WO9963088-A2.
XX
PD   09-DEC-1999.
XX
PF   02-JUN-1999;   99WO-US12252.
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PR   02-JUN-1998;   98US-0087607.
PR   02-JUN-1998;   98US-0087609.
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PR   03-JUN-1998;   98US-0087827.
PR   04-JUN-1998;   98US-0088021.
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PR   04-JUN-1998;   98US-0088326.
PR   05-JUN-1998;   98US-0088167.
PR   05-JUN-1998;   98US-0088202.
PR   05-JUN-1998;   98US-0088212.
PR   05-JUN-1998;   98US-0088217.
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PR   16-JUN-1998;   98US-0089512.
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PR   25-JUN-1998;   98US-0090696.
PR   26-JUN-1998;   98US-0090862.
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PR   02-JUL-1998;   98US-0091626.
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PR   02-JUL-1998;   98US-0091633.
PR   02-JUL-1998;   98US-0091646.
PR   02-JUL-1998;   98US-0091673.
PR   07-JUL-1998;   98US-0091978.
PR   07-JUL-1998;   98US-0091982.
PR   09-JUL-1998;   98US-0092182.
PR   10-JUL-1998;   98US-0092472.
PR   20-JUL-1998;   98US-0093339.
PR   30-JUL-1998;   98US-0094651.
PR   04-AUG-1998;   98US-0095282.
PR   04-AUG-1998;   98US-0095285.
PR   04-AUG-1998;   98US-0095301.
PR   04-AUG-1998;   98US-0095302.
PR   04-AUG-1998;   98US-0095318.
PR   04-AUG-1998;   98US-0095321.
```

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PR   04-AUG-1998;   98US-0095325.
PR   10-AUG-1998;   98US-0095916.
PR   10-AUG-1998;   98US-0095929.
PR   10-AUG-1998;   98US-0096012.
PR   11-AUG-1998;   98US-0096143.
PR   11-AUG-1998;   98US-0096146.
PR   12-AUG-1998;   98US-0096329.
PR   17-AUG-1998;   98US-0096757.
PR   17-AUG-1998;   98US-0096766.
PR   17-AUG-1998;   98US-0096768.
PR   17-AUG-1998;   98US-0096773.
PR   17-AUG-1998;   98US-0096791.
PR   17-AUG-1998;   98US-0096867.
PR   17-AUG-1998;   98US-0096891.
PR   17-AUG-1998;   98US-0096894.
PR   17-AUG-1998;   98US-0096895.
PR   17-AUG-1998;   98US-0096897.
PR   18-AUG-1998;   98US-0096949.
PR   18-AUG-1998;   98US-0096950.
PR   18-AUG-1998;   98US-0096959.
PR   18-AUG-1998;   98US-0096960.
PR   18-AUG-1998;   98US-0097022.
PR   19-AUG-1998;   98US-0097141.
PR   20-AUG-1998;   98US-0097218.
PR   24-AUG-1998;   98US-0097661.
PR   26-AUG-1998;   98US-0097951.
PR   26-AUG-1998;   98US-0097952.
PR   26-AUG-1998;   98US-0097954.
PR   26-AUG-1998;   98US-0097955.
PR   26-AUG-1998;   98US-0097971.
PR   26-AUG-1998;   98US-0097974.
PR   26-AUG-1998;   98US-0097978.
PR   26-AUG-1998;   98US-0097979.
PR   26-AUG-1998;   98US-0097986.
PR   26-AUG-1998;   98US-0098014.
PR   31-AUG-1998;   98US-0098525.
PR   16-SEP-1998;   98US-0100634.
PR   12-JAN-1999;   99US-0115565.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Baker K,  Chen J,  Goddard A,  Gurney AL,  Smith V,  Watanabe CK;
PI   Wood WI,  Yuan J;
XX
DR   WPI; 2000-072883/06.
DR   N-PSDB; AAZ65030.
XX
PT   Membrane-bound proteins and related nucleotide sequences  -
XX
PS   claim 12; Fig 151; 822pp; English.
XX
CC   The invention provides membrane-bound PRO polypeptides and
CC   polynucleotides encoding them. The PRO sequences of the invention were
CC   identified based on extracellular domain homology screening. The PRO
CC   sequences have homology with proteins including LDL receptors, TIE
CC   ligands and various enzymes. The membrane-bound proteins and receptor
CC   molecules are useful as pharmaceutical and diagnostic agents. Receptor
CC   immunoadhesins, for instance, can be used as therapeutic agents to block
CC   receptor-ligand interactions. The membrane-bound proteins can also be
CC   employed for screening of potential peptide or small molecule inhibitors
CC   of the relevant receptor/ligand interaction. The PRO encoding sequences
CC   are useful as hybridization probes, in chromosome and gene mapping and in
CC   the generation of antisense RNA and DNA. PRO nucleic acid sequences
CC   will also be useful for the preparation of PRO polypeptides, especially
CC   by recombinant techniques.
XX
SQ   Sequence   265 AA;

  Query Match           100.0%;  Score 1409;  DB 21;  Length 265;
  Best Local Similarity  100.0%;  Pred. No. 2.9e-131;
  Matches  265;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MGLPGLFCLAVLAASSFSKAREEEITPVVSIAYKVLEVFPKGRWVLITCCAPQPPPPITY 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MGLPGLFCLAVLAASSFSKAREEEITPVVSIAYKVLEVFPKGRWVLITCCAPQPPPPITY 60

Qy         61 SLCGTKNIKVAKKVVKTHEPASFNLNVTLKSSPDLLTYFCRASSTSGAHVDSARLQMHWE 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 SLCGTKNIKVAKKVVKTHEPASFNLNVTLKSSPDLLTYFCRASSTSGAHVDSARLQMHWE 120

Qy        121 LWSKPVSELRANFTLQDRGAGPRVEMICQASSGSPPITNSLIGKDGQVHLQQRPCHRQPA 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LWSKPVSELRANFTLQDRGAGPRVEMICQASSGSPPITNSLIGKDGQVHLQQRPCHRQPA 180

Qy        181 NFSFLPSQTSDWFWCQAANNANVQHSALTVVPPGGDQKMEDWQGPLESPILALPLYRSTR 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 NFSFLPSQTSDWFWCQAANNANVQHSALTVVPPGGDQKMEDWQGPLESPILALPLYRSTR 240

Qy        241 RLSEEEFGGFRIGNGEVRGRKAAAM 265
              |||||||||||||||||||||||||
Db        241 RLSEEEFGGFRIGNGEVRGRKAAAM 265


RESULT 3
AAB65214
ID   AAB65214 standard; Protein; 265 AA.
XX
AC   AAB65214;
XX
DT   02-APR-2001  (first entry)
XX
DE   Human PRO809 (UNQ464) protein sequence SEQ ID NO:223.
XX
KW   Human; secreted and transmembrane protein; PRO; cytostatic;
KW   cell death; cancer; chromosomal mapping; gene mapping; tissue typing;
KW   diagnostic assay.
XX
OS   Homo sapiens.
XX
PN   WO200073454-A1.
XX
PD   07-DEC-2000.
XX
PF   30-MAR-2000; 2000WO-US08439.
XX
PR   02-JUN-1999;   99WO-US12252.
PR   23-JUN-1999;   99US-0141037.
PR   07-JUL-1999;   99US-0143048.
PR   20-JUL-1999;   99US-0144758.
PR   26-JUL-1999;   99US-0145698.
PR   28-JUL-1999;   99US-0146222.
PR   17-AUG-1999;   99US-0149396.
PR   15-SEP-1999;   99WO-US21090.
PR   15-SEP-1999;   99WO-US21547.
PR   08-OCT-1999;   99US-0158663.
PR   30-NOV-1999;   99WO-US28313.
PR   01-DEC-1999;   99WO-US28301.
PR   16-DEC-1999;   99WO-US30095.
PR   20-DEC-1999;   99WO-US30911.
PR   05-JAN-2000; 2000WO-US00219.
PR   06-JAN-2000; 2000WO-US00376.
PR   11-FEB-2000; 2000WO-US03565.
PR   18-FEB-2000; 2000WO-US04341.
PR   22-FEB-2000; 2000WO-US04414.
PR   24-FEB-2000; 2000WO-US04914.
PR   24-FEB-2000; 2000WO-US05004.
PR   02-MAR-2000; 2000WO-US05841.
PR   15-MAR-2000; 2000WO-US06884.
PR   20-MAR-2000; 2000WO-US07377.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Ashkenazi AJ,  Baker KP,  Botstein D,  Desnoyers L,  Eaton DL;
PI   Ferrara N,  Fong S,  Gerber H,  Gerritsen ME,  Goddard A,  Godowski PJ;
PI   Grimaldi CJ,  Gurney AL,  Kljavin IJ,  Napier MA,  Pan J,  Paoni NF;
PI   Roy MA,  Stewart TA,  Tumas D,  Watanabe CK,  Williams PM,  Wood WI;
```

PI Zhang Z;
XX
DR WPI; 2001-032160/04.
DR N-PSDB; AAF44176.
XX
PT PRO polynucleotides used to produce polypeptides used to target
PT bioactive molecules such as toxins, radiolabels or antibodies, to
PT specific cells, to cause targeted cell death -
XX
PS Claim 12; Fig 151; 935pp; English.
XX
CC The present invention describes human secreted and transmembrane PRO
CC proteins. The PRO proteins have cytostatic activity. The PRO proteins
CC can be used for targeted delivery of bioactive molecules, such as
CC toxins, radiolabels or antibodies, that cause cell death. PRO nucleotide
CC sequences, and their fragments, can be used as hybridisation probes, in
CC chromosomal and gene mapping, and in the generation of anti-sense RNA
CC and DNA. They may also be used to produce transgenic animals which are
CC used to develop and screen therapeutically useful reagents. The PRO
CC nucleotide and protein sequence can be used for tissue typing and in
CC treating cancer. Anti-PRO antibodies can be used in diagnostic assays.
CC AAF44270 to AAF44470 represent PCR primers and hybridisation probes used
CC in the isolation of human PRO sequences. AAF44087 to AAF44269 and
CC AAB65154 to AAB65300 represent human PRO polynucleotide and protein
CC sequences given in the exemplification of the present invention.
XX
SQ Sequence 265 AA;

Query Match 100.0%; Score 1409; DB 22; Length 265;
Best Local Similarity 100.0%; Pred. No. 2.9e-131;
Matches 265; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MGLPGLFCLAVLAASSFSKAREEEITPVVSIAYKVLEVFPKGRWVLITCCAPQPPPPITY 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MGLPGLFCLAVLAASSFSKAREEEITPVVSIAYKVLEVFPKGRWVLITCCAPQPPPPITY 60

Qy         61 SLCGTKNIKVAKKVVKTHEPASFNLNVTLKSSPDLLTYFCRASSTSGAHVDSARLQMHWE 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 SLCGTKNIKVAKKVVKTHEPASFNLNVTLKSSPDLLTYFCRASSTSGAHVDSARLQMHWE 120

Qy        121 LWSKPVSELRANFTLQDRGAGPRVEMICQASSGSPPITNSLIGKDGQVHLQQRPCHRQPA 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LWSKPVSELRANFTLQDRGAGPRVEMICQASSGSPPITNSLIGKDGQVHLQQRPCHRQPA 180

Qy        181 NFSFLPSQTSDWFWCQAANNANVQHSALTVVPPGGDQKMEDWQGPLESPILALPLYRSTR 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 NFSFLPSQTSDWFWCQAANNANVQHSALTVVPPGGDQKMEDWQGPLESPILALPLYRSTR 240

Qy        241 RLSEEEFGGFRIGNGEVRGRKAAAM 265
              |||||||||||||||||||||||||
Db        241 RLSEEEFGGFRIGNGEVRGRKAAAM 265
```

RESULT 4
AAU83666
ID AAU83666 standard; Protein; 265 AA.
XX
AC AAU83666;
XX
DT 08-MAY-2002 (first entry)
XX
DE Human PRO protein, Seq ID No 150.
XX
KW Human; secreted protein; PRO; tumour; lung cancer; colon cancer;
KW breast cancer; prostate tumour; rectal tumour; liver tumour;
KW pericyte cell proliferation; chondrocyte cell proliferation;
KW tumour necrosis factor-alpha.
XX
OS Homo sapiens.
XX
PN WO200208288-A2.
XX
PD 31-JAN-2002.
XX
PF 29-JUN-2001; 2001WO-US21066.
XX
PR 20-JUL-2000; 2000US-219556P.
PR 25-JUL-2000; 2000US-220585P.
PR 25-JUL-2000; 2000US-220605P.
PR 25-JUL-2000; 2000US-220607P.
PR 25-JUL-2000; 2000US-220624P.
PR 25-JUL-2000; 2000US-220638P.
PR 25-JUL-2000; 2000US-220664P.
PR 25-JUL-2000; 2000US-220666P.
PR 26-JUL-2000; 2000US-220893P.
PR 28-JUL-2000; 2000WO-US20710.
PR 23-AUG-2000; 2000WO-US23522.
PR 24-AUG-2000; 2000WO-US23328.
PR 15-SEP-2000; 2000US-000000P.
PR 10-NOV-2000; 2000WO-US30873.
PR 28-NOV-2000; 2000US-253646P.
PR 01-DEC-2000; 2000WO-US32678.
PR 20-DEC-2000; 2000US-0747259.
PR 20-DEC-2000; 2000WO-US34956.
PR 28-FEB-2001; 2001WO-US06520.
PR 10-MAY-2001; 2001US-0854280.
PR 25-MAY-2001; 2001WO-US17092.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Desnoyers L, Gerritsen ME, Goddard A, Godowski PJ;
PI Grimaldi JC, Gurney AL, Smith V, Stephan JF, Watanabe CK, Wood WI;
XX
DR WPI; 2002-172001/22.
DR N-PSDB; ABK33610.
XX
PT One hundred and twenty two nucleic acids encoding PRO polypeptides,
PT useful for treating a PRO related disorder and for diagnosing tumours
PT such as lung cancer, colon cancer, breast tumour, prostate tumour, rectal
PT tumour or liver tumour -
XX
PS Claim 11; Figure 150; 359pp; English.
XX
CC The invention relates to one hundred and twenty two nucleic acids
CC encoding PRO polypeptides. The sequences of the 122 PRO polynucleotides
CC encode human secreted proteins. The PRO nucleic acids, polypeptides,
CC agonists and antagonists are useful for treating a PRO related disorder.
CC The PRO polypeptides are useful for diagnosing tumours, especially lung
CC cancer, colon cancer, breast tumour, prostate tumour, rectal tumour or
CC liver tumour. The PRO polypeptides are useful for stimulating the
CC proliferation of, or gene expression, in pericyte cells, for stimulating
CC the proliferation or differentiation of chondrocyte cells, for
CC stimulating the release of tumour necrosis factor-alpha from human blood,
CC for stimulating or inhibiting the proliferation of normal human dermal
CC fibroblast cells. The PRO polypeptide may also be used as molecular
CC weight markers and for tissue typing. The PRO nucleic acids have
CC applications in molecular biology, including use as hybridisation probes,
CC and in chromosome and gene mapping. AAU83592-AAU83713 represent human PRO
CC protein sequences of the invention.
XX
SQ Sequence 265 AA;

Query Match 100.0%; Score 1409; DB 23; Length 265;
Best Local Similarity 100.0%; Pred. No. 2.9e-131;
Matches 265; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MGLPGLFCLAVLAASSFSKAREEEITPVVSIAYKVLEVFPKGRWVLITCCAPQPPPPITY 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MGLPGLFCLAVLAASSFSKAREEEITPVVSIAYKVLEVFPKGRWVLITCCAPQPPPPITY 60

Qy         61 SLCGTKNIKVAKKVVKTHEPASFNLNVTLKSSPDLLTYFCRASSTSGAHVDSARLQMHWE 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 SLCGTKNIKVAKKVVKTHEPASFNLNVTLKSSPDLLTYFCRASSTSGAHVDSARLQMHWE 120

Qy        121 LWSKPVSELRANFTLQDRGAGPRVEMICQASSGSPPITNSLIGKDGQVHLQQRPCHRQPA 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
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```
Db        121 LWSKPVSELRANFTLQDRGAGPRVEMICQASSGSPPITNSLIGKDGQVHLQQRPCHRQPA 180

Qy        181 NFSFLPSQTSDWFWCQAANNANVQHSALTVVPPGGDQKMEDWQGPLESPILALPLYRSTR 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 NFSFLPSQTSDWFWCQAANNANVQHSALTVVPPGGDQKMEDWQGPLESPILALPLYRSTR 240

Qy        241 RLSEEEFGGFRIGNGEVRGRKAAAM 265
              |||||||||||||||||||||||||
Db        241 RLSEEEFGGFRIGNGEVRGRKAAAM 265


RESULT 5
ABU59107
ID   ABU59107 standard; Protein; 265 AA.
XX
AC   ABU59107;
XX
DT   28-APR-2003  (first entry)
XX
DE   Novel human secreted or transmembrane protein PRO809.
XX
KW   Human; PRO; hypertrophy of neonatal heart; angiogenesis; wound healing;
KW   cardiac insufficiency disorder; cancer; tumour; immune response;
KW   adrenal cortical capillary endothelial growth; c-fos induction;
KW   vascular endothelial growth factor inhibition; VEGF inhibition;
KW   endothelial cell growth inhibitor; T-lymphocytes stimulation;
KW   retinal neurons cell survival; rod photoreceptor cell survival;
KW   retinal disorder; retinitis pigmentosum; kidney disorder;
KW   mammalian kidney mesangial cell proliferation; Berger disease;
KW   dermatitis; herpetiformis; Crohn's disease; chondrocyte proliferation;
KW   chondrocyte redifferentiation; sports injury; arthritis.
XX
OS   Homo sapiens.
XX
PN   US2002132252-A1.
XX
PD   19-SEP-2002.
XX
PF   14-NOV-2001; 2001US-0990442.
XX
PR   05-NOV-1997;   97WO-US20069.
PR   16-SEP-1998;   98WO-US19330.
PR   17-SEP-1998;   98WO-US19437.
PR   07-OCT-1998;   98WO-US21141.
PR   01-DEC-1998;   98WO-US25108.
PR   05-JAN-1999;   99WO-US00106.
PR   08-MAR-1999;   99WO-US05028.
PR   02-JUN-1999;   99WO-US12252.
PR   15-SEP-1999;   99WO-US21090.
PR   15-SEP-1999;   99WO-US21547.
PR   30-NOV-1999;   99WO-US28313.
PR   01-DEC-1999;   99WO-US28301.
PR   01-DEC-1999;   99WO-US28634.
PR   16-DEC-1999;   99WO-US30095.
PR   20-DEC-1999;   99WO-US30911.
PR   06-JAN-2000; 2000WO-US00219.
PR   06-JAN-2000; 2000WO-US00376.
PR   11-FEB-2000; 2000WO-US03565.
PR   18-FEB-2000; 2000WO-US04341.
PR   22-FEB-2000; 2000WO-US04414.
PR   24-FEB-2000; 2000WO-US04914.
PR   24-FEB-2000; 2000WO-US05004.
PR   02-MAR-2000; 2000WO-US05841.
PR   10-MAR-2000; 2000WO-US06319.
PR   15-MAR-2000; 2000WO-US06884.
PR   20-MAR-2000; 2000WO-US07377.
PR   30-MAR-2000; 2000WO-US08439.
PR   15-MAY-2000; 2000WO-US13358.
PR   17-MAY-2000; 2000WO-US13705.
PR   22-MAY-2000; 2000WO-US14042.
PR   30-MAY-2000; 2000WO-US14941.
PR   02-JUN-2000; 2000WO-US15264.
PR   28-JUL-2000; 2000WO-US20710.
PR   11-AUG-2000; 2000WO-US22031.
PR   23-AUG-2000; 2000WO-US23522.
PR   24-AUG-2000; 2000WO-US23328.
PR   08-NOV-2000; 2000WO-US30952.
PR   01-DEC-2000; 2000WO-US32678.
PR   28-FEB-2001; 2001WO-US06520.
PR   01-JUN-2001; 2001WO-US17800.
PR   20-JUN-2001; 2001WO-US19692.
PR   29-JUN-2001; 2001WO-US21066.
PR   09-JUL-2001; 2001WO-US21735.
PR   16-JUN-1997;   97US-049787P.
PR   17-OCT-1997;   97US-062250P.
PR   12-NOV-1997;   97US-065186P.
PR   13-NOV-1997;   97US-065311P.
PR   24-NOV-1997;   97US-066770P.
PR   25-FEB-1998;   98US-075945P.
PR   20-MAR-1998;   98US-078910P.
PR   28-APR-1998;   98US-083322P.
PR   07-MAY-1998;   98US-084600P.
PR   28-MAY-1998;   98US-087106P.
PR   02-JUN-1998;   98US-087607P.
PR   02-JUN-1998;   98US-087609P.
PR   02-JUN-1998;   98US-087759P.
PR   03-JUN-1998;   98US-087827P.
PR   04-JUN-1998;   98US-088021P.
PR   04-JUN-1998;   98US-088025P.
PR   04-JUN-1998;   98US-088026P.
PR   04-JUN-1998;   98US-088028P.
PR   04-JUN-1998;   98US-088029P.
PR   04-JUN-1998;   98US-088030P.
PR   04-JUN-1998;   98US-088033P.
PR   04-JUN-1998;   98US-088326P.
PR   05-JUN-1998;   98US-088167P.
PR   05-JUN-1998;   98US-088202P.
PR   05-JUN-1998;   98US-088212P.
PR   05-JUN-1998;   98US-088217P.
PR   09-JUN-1998;   98US-088655P.
PR   10-JUN-1998;   98US-088734P.
PR   10-JUN-1998;   98US-088738P.
PR   10-JUN-1998;   98US-088742P.
PR   10-JUN-1998;   98US-088810P.
PR   10-JUN-1998;   98US-088824P.
PR   10-JUN-1998;   98US-088826P.
PR   11-JUN-1998;   98US-088858P.
PR   11-JUN-1998;   98US-088861P.
PR   11-JUN-1998;   98US-088876P.
PR   12-JUN-1998;   98US-089105P.
PR   16-JUN-1998;   98US-089440P.
PR   16-JUN-1998;   98US-089512P.
PR   16-JUN-1998;   98US-089514P.
PR   17-JUN-1998;   98US-089532P.
PR   17-JUN-1998;   98US-089538P.
PR   17-JUN-1998;   98US-089598P.
PR   17-JUN-1998;   98US-089599P.
PR   17-JUN-1998;   98US-089600P.
PR   17-JUN-1998;   98US-089653P.
PR   18-JUN-1998;   98US-089801P.
PR   18-JUN-1998;   98US-089907P.
PR   18-JUN-1998;   98US-089908P.
PR   28-AUG-2001; 2001US-0941992.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Ashkenazi AJ,  Baker KP,  Botstein D,  Desnoyers L,  Eaton DL;
PI   Ferrara N,  Fong S,  Gerber H,  Gerritsen ME,  Goddard A,  Godowski PJ;
PI   Grimaldi JC,  Gurney AL,  Kljavin IJ,  Napier MA,  Pan J,  Paoni NF;
PI   Roy MA,  Stewart TA,  Tumas D,  Watanabe CK,  Williams PM,  Wood WI;
PI   Zhang Z;
XX
DR   WPI; 2003-247083/24.
DR   N-PSDB; ABX80266.
XX
PT   Novel isolated PRO polypeptides e.g., PRO826, PRO1068, PRO1184, PRO1346
```

```
PT   and PRO1375, which stimulate proliferation of stimulated T-lymphocytes
PT   are therapeutically useful for enhancing immune response and in cancer
PT   treatments -
XX
PS   Claim 12; Fig 151; 648pp; English.
XX
CC   The invention describes an isolated human PRO polypeptide. The PRO
CC   polypeptides are useful in detecting PRO polypeptides in a sample, in
CC   linking a bioactive molecule to a cell expressing a PRO polypeptide, and
CC   in modulating at least one biological activity of a cell expressing a PRO
CC   polypeptide. PRO1312 stimulates hypertrophy of neonatal heart and is thus
CC   useful for treating cardiac insufficiency disorders. PRO1154 and PRO1186
CC   stimulate adrenal cortical capillary endothelial growth, and PRO536,
CC   PRO943, PRO828, PRO826, PRO1068 or PRO535, PRO826, PRO819, PRO1126,
CC   PRO1360 and PRO1387 induce c-fos in endothelial cells, and are thus
CC   useful for treating conditions or disorders where angiogenesis would be
CC   beneficial, e.g. wound healing and antagonist of this polypeptide are
CC   useful for treating cancerous tumours. PRO812 inhibits vascular
CC   endothelial growth factor (VEGF) stimulated proliferation of endothelial
CC   cells and is thus useful for inhibiting endothelial cell growth in
CC   mammals which would be beneficial in inhibiting tumour growth. PRO826,
CC   PRO1068, PRO1184, PRO1346 and PRO1375 stimulate proliferation of
CC   stimulated T-lymphocytes and are therapeutically useful for enhancing
CC   immune response. PRO828, PRO826, PRO1068 or PRO1132 enhance survival of
CC   retinal neurons cells (PRO1132 is also enhances survival/proliferation of
CC   rod photoreceptor cells) and therefore are useful for treating retinal
CC   disorders of injuries, e.g. retinitis pigmentosum, AMD. PRO819, PRO813
CC   and PRO11066 induce proliferation of mammalian kidney mesangial cells,
CC   and therefore are useful for treating kidney disorders associated with
CC   decreased mesangial cell function such as Berger disease or other
CC   nephropathies associated with dermatitis, herpetiformis or Crohn's
CC   disease. PRO1310, PRO844, PRO1312, PRO1192 and PRO1387 induce the
CC   proliferation and/or redifferentiation of chondrocytes in culture and
CC   are thus useful for treating sports injuries, and arthritis. This
CC   is the amino acid sequence of a novel human PRO protein.
XX
SQ   Sequence   265 AA;

  Query Match            100.0%;  Score 1409;  DB 24;  Length 265;
  Best Local Similarity  100.0%;  Pred. No. 2.9e-131;
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Db        181 NFSFLPSQTSDWFWCQAANNANVQHSALTVVPPGGDQKMEDWQGPLESPILALPLYRSTR 240

Qy        241 RLSEEEFGGFRIGNGEVRGRKAAAM 265
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Db        241 RLSEEEFGGFRIGNGEVRGRKAAAM 265


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DT   22-APR-2003  (first entry)
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KW   diagnostic; biosensor; bioreactor; tumour; therapeutic;
KW   gene therapy; tumour-associated antigenic target; TAT; ADEPT;
KW   antibody-dependent enzyme mediated prodrug therapy; cytostatic.
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OS   Homo sapiens.
XX
PN   US2003027162-A1.
XX
PD   06-FEB-2003.
XX
PF   15-NOV-2001; 2001US-0997428.
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Query Match 100.0%; Score 1409; DB 24; Length 265;
Best Local Similarity 100.0%; Pred. No. 2.9e-131;
Matches 265; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy         61 SLCGTKNIKVAKKVVKTHEPASFNLNVTLKSSPDLLTYFCRASSTSGAHVDSARLQMHWE 120
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Qy        181 NFSFLPSQTSDWFWCQAANNANVQHSALTVVPPGGDQKMEDWQGPLESPILALPLYRSTR 240
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RESULT 7

ABU59403
ID ABU59403 standard; Protein; 265 AA.
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AC ABU59403;
XX
DT 22-APR-2003 (first entry)
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DE Novel human secreted or transmembrane protein PRO791.
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KW Human; PRO; hypertrophy of neonatal heart; angiogenesis; wound healing;
KW cardiac insufficiency disorder; cancer; tumour; immune response;
KW adrenal cortical capillary endothelial growth; c-fos induction;
KW vascular endothelial growth factor inhibition; VEGF inhibition;
KW endothelial cell growth inhibitor; T-lymphocytes stimulation;
KW retinal neurons cell survival; rod photoreceptor cell survival;
KW retinal disorder; retinitis pigmentosum; kidney disorder;
KW mammalian kidney mesangial cell proliferation; Berger disease;
KW dermatitis; herpetiformis; Crohn's disease; chondrocyte proliferation;
KW chondrocyte redifferentiation; sports injury; arthritis.
XX
OS Homo sapiens.
XX
PN US2003027985-A1.
XX
PD 06-FEB-2003.
XX
PF 14-NOV-2001; 2001US-0990562.
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PR 05-NOV-1997; 97WO-US20069.
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PR 01-DEC-1998; 98WO-US25108.
PR 05-JAN-1999; 99WO-US00106.
PR 08-MAR-1999; 99WO-US05028.
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PR 20-DEC-1999; 99WO-US30911.
PR 05-JAN-2000; 2000WO-US00219.
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PR 11-FEB-2000; 2000WO-US03565.
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PR 08-NOV-2000; 2000WO-US30952.
PR 01-DEC-2000; 2000WO-US32678.
PR 28-FEB-2001; 2001WO-US06520.
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Db          1 MGLPGLFCLAVLAASSFSKAREEEITPVVSIAYKVLEVFPKGRWVLITCCAPQPPPPITY 60

Qy         61 SLCGTKNIKVAKKVVKTHEPASFNLNVTLKSSPDLLTYFCRASSTSGAHVDSARLQMHWE 120
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Db         61 SLCGTKNIKVAKKVVKTHEPASFNLNVTLKSSPDLLTYFCRASSTSGAHVDSARLQMHWE 120

Qy        121 LWSKPVSELRANFTLQDRGAGPRVEMICQASSGSPPITNSLIGKDGQVHLQQRPCHRQPA 180
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Db        121 LWSKPVSELRANFTLQDRGAGPRVEMICQASSGSPPITNSLIGKDGQVHLQQRPCHRQPA 180

Qy        181 NFSFLPSQTSDWFWCQAANNANVQHSALTVVPPGGDQKMEDWQGPLESPILALPLYRSTR 240
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Db        181 NFSFLPSQTSDWFWCQAANNANVQHSALTVVPPGGDQKMEDWQGPLESPILALPLYRSTR 240

Qy        241 RLSEEEFGGFRIGNGEVRGRKAAAM 265
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Db        241 RLSEEEFGGFRIGNGEVRGRKAAAM 265


RESULT 8
ABU60538
ID   ABU60538 standard; Protein; 265 AA.
XX
AC   ABU60538;
XX
DT   01-MAY-2003  (first entry)
XX
DE   Human secreted/transmembrane protein, #90.
XX
KW   Human; PRO; secreted; transmembrane; signal peptide;
KW   pharmaceutical; diagnostic; therapeutic; gene therapy.
XX
OS   Homo sapiens.
XX
PN   US2002160384-A1.
XX
PD   31-OCT-2002.
XX
PF   14-NOV-2001; 2001US-0992598.
XX
PR   05-NOV-1997;   97WO-US20069.
PR   16-SEP-1998;   98WO-US19330.
PR   17-SEP-1998;   98WO-US19437.
PR   07-OCT-1998;   98WO-US21141.
PR   01-DEC-1998;   98WO-US25108.
PR   05-JAN-1999;   99WO-US00106.
PR   08-MAR-1999;   99WO-US05028.
PR   02-JUN-1999;   99WO-US12252.
PR   15-SEP-1999;   99WO-US21090.
PR   15-SEP-1999;   99WO-US21547.
PR   30-NOV-1999;   99WO-US28313.
PR   01-DEC-1999;   99WO-US28301.
PR   01-DEC-1999;   99WO-US28634.
PR   16-DEC-1999;   99WO-US30095.
PR   20-DEC-1999;   99WO-US30911.
PR   05-JAN-2000; 2000WO-US00219.
PR   06-JAN-2000; 2000WO-US00376.
PR   11-FEB-2000; 2000WO-US03565.
PR   18-FEB-2000; 2000WO-US04341.
PR   22-FEB-2000; 2000WO-US04414.
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PR   02-MAR-2000; 2000WO-US05841.
PR   10-MAR-2000; 2000WO-US06319.
PR   15-MAR-2000; 2000WO-US06884.
PR   20-MAR-2000; 2000WO-US07377.
PR   30-MAR-2000; 2000WO-US08439.
PR   15-MAY-2000; 2000WO-US13358.
PR   17-MAY-2000; 2000WO-US13705.
PR   22-MAY-2000; 2000WO-US14042.
PR   30-MAY-2000; 2000WO-US14941.
PR   02-JUN-2000; 2000WO-US15264.
PR   28-JUL-2000; 2000WO-US20710.
PR   11-AUG-2000; 2000WO-US22031.
PR   23-AUG-2000; 2000WO-US23522.
PR   24-AUG-2000; 2000WO-US23328.
PR   08-NOV-2000; 2000WO-US30952.
PR   01-DEC-2000; 2000WO-US32678.
PR   28-FEB-2001; 2001WO-US06520.
PR   01-JUN-2001; 2001WO-US17800.
PR   20-JUN-2001; 2001WO-US19692.
PR   29-JUN-2001; 2001WO-US21066.
PR   09-JUL-2001; 2001WO-US21735.
PR   16-JUN-1997;   97US-049787P.
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PR   17-OCT-1997;   97US-062250P.
PR   12-NOV-1997;   97US-065186P.
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PR   24-NOV-1997;   97US-066770P.
PR   25-FEB-1998;   98US-075945P.
PR   20-MAR-1998;   98US-078910P.
PR   28-APR-1998;   98US-083322P.
PR   07-MAY-1998;   98US-084600P.
PR   28-MAY-1998;   98US-087106P.
PR   02-JUN-1998;   98US-087607P.
PR   02-JUN-1998;   98US-087609P.
PR   02-JUN-1998;   98US-087759P.
PR   03-JUN-1998;   98US-087827P.
PR   04-JUN-1998;   98US-088021P.
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PR   04-JUN-1998;   98US-088028P.
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PR   05-JUN-1998;   98US-088212P.
PR   05-JUN-1998;   98US-088217P.
PR   09-JUN-1998;   98US-088655P.
PR   10-JUN-1998;   98US-088734P.
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PR   11-JUN-1998;   98US-088858P.
PR   11-JUN-1998;   98US-088861P.
PR   11-JUN-1998;   98US-088876P.
PR   12-JUN-1998;   98US-089105P.
PR   16-JUN-1998;   98US-089440P.
PR   16-JUN-1998;   98US-089512P.
PR   16-JUN-1998;   98US-089514P.
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PR   17-JUN-1998;   98US-089538P.
PR   17-JUN-1998;   98US-089598P.
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PR   18-JUN-1998;   98US-089907P.
PR   18-JUN-1998;   98US-089908P.
PR   28-AUG-2001; 2001US-0941992.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Ashkenazi AJ,  Baker KP,  Botstein D,  Desnoyers L,  Eaton DL;
PI   Ferrara N,  Fong S,  Gerber H,  Gerritsen ME,  Goddard A,  Godowski PJ;
PI   Grimaldi JC,  Gurney AL,  Kljavin IJ,  Napier MA,  Pan J,  Paoni NF;
PI   Roy MA,  Stewart TA,  Tumas D,  Watanabe CK,  Williams PM,  Wood WI;
PI   Zhang Z;
XX
DR   WPI; 2003-288106/28.
DR   N-PSDB; ABX90244.
XX
PT   New transmembrane polypeptides and nucleic acids encoding the
PT   polypeptides, useful in gene therapy, in chromosome identification, as
PT   chromosome markers, or in generating probes -
XX
PS   Claim 12; Fig 151; 650pp; English.
XX
CC   The invention discloses isolated PRO secreted/transmembrane polypeptides
CC   comprising a sequence without signal peptide and the nucleic acid
CC   encoding them. The polypeptides can be used to raise antibodies that
CC   specifically bind to the PRO polypeptide, for linking a bioactive
CC   molecule to a cell expressing a PRO protein and for modulating at least
CC   one biological activity of a cell. The PRO polypeptides or
CC   polynucleotides are also useful in gene therapy, in chromosome
CC   identification, as chromosome markers, or in generating probes. The PRO
CC   polypeptides are useful as molecular markers for protein
CC   electrophoresis, and the isolated nucleic acids may be used for
CC   recombinantly expressing those markers. The PRO polypeptides and nucleic
CC   acids may also be used in tissue typing. Anti-PRO antibodies are useful
CC   in diagnostic assays for PRO, and in affinity purification of PRO from
CC   recombinant cell culture or natural sources. The sequences presented in
CC   ABU60478-ABU60624 are the PRO polynucleotides of the invention.
CC   Note: The sequence data for this patent is also available in electronic
CC   format from USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ   Sequence   265 AA;

  Query Match           100.0%;  Score 1409;  DB 24;  Length 265;
  Best Local Similarity  100.0%;  Pred. No. 2.9e-131;
  Matches  265;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MGLPGLFCLAVLAASSFSKAREEEITPVVSIAYKVLEVFPKGRWVLITCCAPQPPPPITY 60
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Db          1 MGLPGLFCLAVLAASSFSKAREEEITPVVSIAYKVLEVFPKGRWVLITCCAPQPPPPITY 60

Qy         61 SLCGTKNIKVAKKVVKTHEPASFNLNVTLKSSPDLLTYFCRASSTSGAHVDSARLQMHWE 120
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Qy        121 LWSKPVSELRANFTLQDRGAGPRVEMICQASSGSPPITNSLIGKDGQVHLQQRPCHRQPA 180
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Db        121 LWSKPVSELRANFTLQDRGAGPRVEMICQASSGSPPITNSLIGKDGQVHLQQRPCHRQPA 180

Qy        181 NFSFLPSQTSDWFWCQAANNANVQHSALTVVPPGGDQKMEDWQGPLESPILALPLYRSTR 240
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Db        181 NFSFLPSQTSDWFWCQAANNANVQHSALTVVPPGGDQKMEDWQGPLESPILALPLYRSTR 240

Qy        241 RLSEEEFGGFRIGNGEVRGRKAAAM 265
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Db        241 RLSEEEFGGFRIGNGEVRGRKAAAM 265


RESULT 9
ABU58029
ID   ABU58029 standard; Protein; 265 AA.
XX
AC   ABU58029;
XX
DT   14-APR-2003  (first entry)
XX
DE   Human PRO polypeptide #61.
XX
KW   Human; PRO; cytostatic; tumour; cancer; breast; lung; stomach; liver;
KW   horse; cow; dog; cat; sheep; pig; goat; rabbit; ADEPT;
KW   antibody-dependent enzyme mediated prodrug therapy.
XX
OS   Homo sapiens.
XX
PN   US2003027163-A1.
XX
PD   06-FEB-2003.
XX
PF   15-NOV-2001; 2001US-0997666.
XX
PR   05-NOV-1997;   97WO-US20069.
PR   16-SEP-1998;   98WO-US19330.
PR   17-SEP-1998;   98WO-US19437.
PR   07-OCT-1998;   98WO-US21141.
PR   01-DEC-1998;   98WO-US25108.
PR   05-JAN-1999;   99WO-US00106.
PR   08-MAR-1999;   99WO-US05028.
PR   02-JUN-1999;   99WO-US12252.
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PR   15-SEP-1999;   99WO-US21547.
PR   30-NOV-1999;   99WO-US28313.
PR   01-DEC-1999;   99WO-US28301.
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PR 01-DEC-1999; 99WO-US28634.
PR 16-DEC-1999; 99WO-US30095.
PR 20-DEC-1999; 99WO-US30911.
PR 05-JAN-2000; 2000WO-US00219.
PR 06-JAN-2000; 2000WO-US00376.
PR 11-FEB-2000; 2000WO-US03565.
PR 18-FEB-2000; 2000WO-US04341.
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PR   31-AUG-1998;   98US-098525P.
PR   16-SEP-1998;   98US-100634P.
PR   17-SEP-1998;   98US-100858P.
PR   22-DEC-1998;   98US-113296P.
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PR   23-JUN-1999;   99US-141037P.
PR   07-JUL-1999;   99US-143048P.

  Query Match             100.0%;  Score 1409;  DB 24;  Length 265;
  Best Local Similarity   100.0%;  Pred. No. 2.9e-131;
  Matches  265;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MGLPGLFCLAVLAASSFSKAREEEITPVVSIAYKVLEVFPKGRWVLITCCAPQPPPPITY 60
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Qy         61 SLCGTKNIKVAKKVVKTHEPASFNLNVTLKSSPDLLTYFCRASSTSGAHVDSARLQMHWE 120
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Qy        121 LWSKPVSELRANFTLQDRGAGPRVEMICQASSGSPPITNSLIGKDGQVHLQQRPCHRQPA 180
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Db        121 LWSKPVSELRANFTLQDRGAGPRVEMICQASSGSPPITNSLIGKDGQVHLQQRPCHRQPA 180

Qy        181 NFSFLPSQTSDWFWCQAANNANVQHSALTVVPPGGDQKMEDWQGPLESPILALPLYRSTR 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 NFSFLPSQTSDWFWCQAANNANVQHSALTVVPPGGDQKMEDWQGPLESPILALPLYRSTR 240

Qy        241 RLSEEEFGGFRIGNGEVRGRKAAAM 265
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Db        241 RLSEEEFGGFRIGNGEVRGRKAAAM 265


RESULT 10
ABU58960
ID   ABU58960 standard; Protein; 265 AA.
XX
AC   ABU58960;
XX
DT   16-APR-2003  (first entry)
XX
DE   Human sectreted/transmembrane protein, #90.
XX
KW   Human; PRO; secreted; transmembrane; signal peptide;
KW   pharmaceutical; diagnostic; biosensor; bioreactor; tumour; therapeutic;
KW   colon cancer; lung cancer; breast cancer;cancer; gene therapy.
XX
OS   Homo sapiens.
XX
PN   US2002142961-A1.
XX
PD   03-OCT-2002.
XX
PF   19-NOV-2001; 2001US-0989721.
XX
PR   05-NOV-1997;   97WO-US20069.
PR   17-SEP-1998;   98WO-US19437.
PR   07-OCT-1998;   98WO-US21141.
PR   01-DEC-1998;   98WO-US25108.
PR   05-JAN-1999;   99WO-US00106.
PR   08-MAR-1999;   99WO-US05028.
PR   02-JUN-1999;   99WO-US12252.
PR   15-SEP-1999;   99WO-US21090.
PR   15-SEP-1999;   99WO-US21547.
PR   30-NOV-1999;   99WO-US28313.
PR   01-DEC-1999;   99WO-US28301.
PR   01-DEC-1999;   99WO-US28634.
PR   16-DEC-1999;   99WO-US30095.
PR   20-DEC-1999;   99WO-US30911.
PR   05-JAN-2000;  2000WO-US00219.
PR   06-JAN-2000;  2000WO-US00376.
PR   11-FEB-2000;  2000WO-US03565.
PR   18-FEB-2000;  2000WO-US04341.
PR   22-FEB-2000;  2000WO-US04414.
PR   24-FEB-2000;  2000WO-US04914.
PR   24-FEB-2000;  2000WO-US05004.
PR   02-MAR-2000;  2000WO-US05841.
PR   10-MAR-2000;  2000WO-US06319.
PR   15-MAR-2000;  2000WO-US06884.
PR   20-MAR-2000;  2000WO-US07377.
PR   30-MAR-2000;  2000WO-US08439.
PR   15-MAY-2000;  2000WO-US13358.
PR   17-MAY-2000;  2000WO-US13705.
PR   22-MAY-2000;  2000WO-US14042.
PR   30-MAY-2000;  2000WO-US14941.
PR   02-JUN-2000;  2000WO-US15264.
PR   28-JUL-2000;  2000WO-US20710.
PR   11-AUG-2000;  2000WO-US22031.
PR   23-AUG-2000;  2000WO-US23522.
PR   24-AUG-2000;  2000WO-US23328.
PR   08-NOV-2000;  2000WO-US30952.
PR   01-DEC-2000;  2000WO-US32678.
PR   28-FEB-2001;  2001WO-US06520.
PR   01-JUN-2001;  2001WO-US17800.
PR   20-JUN-2001;  2001WO-US19692.
PR   29-JUN-2001;  2001WO-US21066.
PR   09-JUL-2001;  2001WO-US21735.
PR   16-JUN-1997;   97US-049787P.
PR   17-OCT-1997;   97US-062250P.
PR   12-NOV-1997;   97US-065186P.
PR   13-NOV-1997;   97US-065311P.
PR   24-NOV-1997;   97US-066770P.
PR   25-FEB-1998;   98US-075945P.
PR   20-MAR-1998;   98US-078910P.
PR   28-APR-1998;   98US-083322P.
PR   07-MAY-1998;   98US-084600P.
PR   28-MAY-1998;   98US-087106P.
PR   02-JUN-1998;   98US-087607P.
PR   02-JUN-1998;   98US-087609P.
PR   02-JUN-1998;   98US-087759P.
PR   03-JUN-1998;   98US-087827P.
PR   04-JUN-1998;   98US-088021P.
PR   04-JUN-1998;   98US-088025P.
PR   04-JUN-1998;   98US-088026P.
PR   04-JUN-1998;   98US-088028P.
PR   04-JUN-1998;   98US-088029P.
PR   04-JUN-1998;   98US-088030P.
PR   04-JUN-1998;   98US-088033P.
PR   04-JUN-1998;   98US-088326P.
PR   05-JUN-1998;   98US-088167P.
PR   05-JUN-1998;   98US-088202P.
PR   05-JUN-1998;   98US-088212P.
PR   05-JUN-1998;   98US-088217P.
PR   09-JUN-1998;   98US-088655P.
PR   10-JUN-1998;   98US-088734P.
PR   10-JUN-1998;   98US-088738P.
PR   10-JUN-1998;   98US-088742P.
PR   10-JUN-1998;   98US-088810P.
PR   10-JUN-1998;   98US-088824P.
PR   10-JUN-1998;   98US-088826P.
PR   11-JUN-1998;   98US-088858P.
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PR 11-JUN-1998; 98US-088861P.
PR 11-JUN-1998; 98US-088876P.
PR 12-JUN-1998; 98US-089105P.
PR 16-JUN-1998; 98US-089440P.
PR 16-JUN-1998; 98US-089512P.
PR 16-JUN-1998; 98US-089514P.
PR 17-JUN-1998; 98US-089532P.
PR 17-JUN-1998; 98US-089538P.
PR 17-JUN-1998; 98US-089598P.
PR 17-JUN-1998; 98US-089599P.
PR 17-JUN-1998; 98US-089600P.
PR 17-JUN-1998; 98US-089653P.
PR 18-JUN-1998; 98US-089801P.
PR 18-JUN-1998; 98US-089907P.
PR 18-JUN-1998; 98US-089908P.
PR 28-AUG-2001; 2001US-0941992.
XX
PA (GETH) GENENTECH INC.
XX
PI Ashkenazi AJ, Baker KP, Botstein D, Desnoyers L, Eaton DL;
PI Ferrara N, Fong S, Gerber H, Gerritsen ME, Goddard A, Godowski PJ;
PI Grimaldi JC, Gurney AL, Kljavin IJ, Napier MA, Pan J, Paoni NF;
PI Roy MA, Stewart TA, Tumas D, Watanabe CK, Williams PM, Wood WI;
PI Zhang Z;
XX
DR WPI; 2003-155950/15.
XX
PT New secreted and transmembrane PRO polypeptides (e.g. PRO183, PRO184,
PT PRO361 or PRO846) useful as targets for therapeutic intervention in
PT cancers (e.g. lung or breast cancers), or for diagnosing these cancers
PT -
XX
PS Claim 12; Fig 151; 647pp; English.
XX
CC The invention discloses isolated PRO secreted/transmembrane polypeptides
CC comprising a sequence without signal peptide and the nucleic acid
CC encoding them. The polypeptides can be used to raise antibodies that
CC specifically bind to the PRO polypeptide, for linking a bioactive
CC molecule to a cell expressing a PRO protein and for modulating at least
CC one biological activity of a cell. The PRO polypeptides or
CC polynucleotides are also useful as pharmaceuticals, diagnostics,
CC biosensors or bioreactors, for detecting or treating e.g. tumours in
CC mammals, e.g. humans, dogs, cats, cattle, horses, sheep, pigs, goats or
CC rabbits as targets for therapeutic intervention in certain cancers (e.g.
CC colon, lung or breast cancers) and diagnostic determination of the
CC presence of these cancers. The PRO polypeptides are also useful as
CC molecular weight markers or for chromosome identification. The PRO genes
CC are useful as hybridisation probes or for screening libraries of human
CC cDNA, genomic DNA or mRNA. The PRO genes may also be used in gene
CC therapy, particularly for replacing a defective gene. The sequences
CC presented in ABU58900-ABU59046 are the PRO polypeptides of the invention.
XX
SQ Sequence 265 AA;

Query Match 100.0%; Score 1409; DB 24; Length 265;
Best Local Similarity 100.0%; Pred. No. 2.9e-131;
Matches 265; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MGLPGLFCLAVLAASSFSKAREEEITPVVSIAYKVLEVFPKGRWVLITCCAPQPPPPITY 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MGLPGLFCLAVLAASSFSKAREEEITPVVSIAYKVLEVFPKGRWVLITCCAPQPPPPITY 60

Qy         61 SLCGTKNIKVAKKVVKTHEPASFNLNVTLKSSPDLLTYFCRASSTSGAHVDSARLQMHWE 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 SLCGTKNIKVAKKVVKTHEPASFNLNVTLKSSPDLLTYFCRASSTSGAHVDSARLQMHWE 120

Qy        121 LWSKPVSELRANFTLQDRGAGPRVEMICQASSGSPPITNSLIGKDGQVHLQQRPCHRQPA 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LWSKPVSELRANFTLQDRGAGPRVEMICQASSGSPPITNSLIGKDGQVHLQQRPCHRQPA 180

Qy        181 NFSFLPSQTSDWFWCQAANNANVQHSALTVVPPGGDQKMEDWQGPLESPILALPLYRSTR 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 NFSFLPSQTSDWFWCQAANNANVQHSALTVVPPGGDQKMEDWQGPLESPILALPLYRSTR 240

Qy        241 RLSEEEFGGFRIGNGEVRGRKAAAM 265
              |||||||||||||||||||||||||
Db        241 RLSEEEFGGFRIGNGEVRGRKAAAM 265
```

RESULT 11
ABU13920
ID ABU13920 standard; Protein; 265 AA.
XX
AC ABU13920;
XX
DT 26-FEB-2003 (first entry)
XX
DE Human PRO809 polypeptide.
XX
KW Human; PRO polypeptide; secreted protein; transmembrane protein;
KW genetic disorder; antibacterial; immunosuppressive.
XX
OS Homo sapiens.
XX
PN US2002103125-A1.
XX
PD 01-AUG-2002.
XX
PF 20-NOV-2001; 2001US-0989731.
XX
PR 05-NOV-1997; 97WO-US20069.
PR 16-SEP-1998; 98WO-US19330.
PR 17-SEP-1998; 98WO-US19437.
PR 07-OCT-1998; 98WO-US21141.
PR 01-DEC-1998; 98WO-US25108.
PR 05-JAN-1999; 99WO-US00106.
PR 08-MAR-1999; 99WO-US05028.
PR 02-JUN-1999; 99WO-US12252.
PR 15-SEP-1999; 99WO-US21090.
PR 15-SEP-1999; 99WO-US21547.
PR 30-NOV-1999; 99WO-US28313.
PR 01-DEC-1999; 99WO-US28301.
PR 01-DEC-1999; 99WO-US28634.
PR 16-DEC-1999; 99WO-US30095.
PR 20-DEC-1999; 99WO-US30911.
PR 06-JAN-2000; 2000WO-US00219.
PR 06-JAN-2000; 2000WO-US00376.
PR 11-FEB-2000; 2000WO-US03565.
PR 18-FEB-2000; 2000WO-US04341.
PR 22-FEB-2000; 2000WO-US04414.
PR 24-FEB-2000; 2000WO-US04914.
PR 24-FEB-2000; 2000WO-US05004.
PR 02-MAR-2000; 2000WO-US05841.
PR 10-MAR-2000; 2000WO-US06319.
PR 15-MAR-2000; 2000WO-US06884.
PR 20-MAR-2000; 2000WO-US07377.
PR 30-MAR-2000; 2000WO-US08439.
PR 15-MAY-2000; 2000WO-US13358.
PR 17-MAY-2000; 2000WO-US13705.
PR 22-MAY-2000; 2000WO-US14042.
PR 30-MAY-2000; 2000WO-US14941.
PR 02-JUN-2000; 2000WO-US15264.
PR 28-JUL-2000; 2000WO-US20710.
PR 11-AUG-2000; 2000WO-US22031.
PR 23-AUG-2000; 2000WO-US23522.
PR 24-AUG-2000; 2000WO-US23328.
PR 08-NOV-2000; 2000WO-US30952.
PR 01-DEC-2000; 2000WO-US32678.
PR 28-FEB-2001; 2001WO-US06520.
PR 01-JUN-2001; 2001WO-US17800.
PR 20-JUN-2001; 2001WO-US19692.
PR 29-JUN-2001; 2001WO-US21066.
PR 09-JUL-2001; 2001WO-US21735.
PR 16-JUN-1997; 97US-049787P.
PR 17-OCT-1997; 97US-062250P.
PR 12-NOV-1997; 97US-065186P.

PR 13-NOV-1997; 97US-065311P.
PR 24-NOV-1997; 97US-066770P.
PR 25-FEB-1998; 98US-075945P.
PR 20-MAR-1998; 98US-078910P.
PR 28-APR-1998; 98US-083322P.
PR 07-MAY-1998; 98US-084600P.
PR 28-MAY-1998; 98US-087106P.
PR 02-JUN-1998; 98US-087607P.
PR 02-JUN-1998; 98US-087609P.
PR 02-JUN-1998; 98US-087759P.
PR 03-JUN-1998; 98US-087827P.
PR 04-JUN-1998; 98US-088021P.
PR 04-JUN-1998; 98US-088025P.
PR 04-JUN-1998; 98US-088026P.
PR 04-JUN-1998; 98US-088028P.
PR 04-JUN-1998; 98US-088029P.
PR 04-JUN-1998; 98US-088030P.
PR 04-JUN-1998; 98US-088033P.
PR 04-JUN-1998; 98US-088326P.
PR 05-JUN-1998; 98US-088167P.
PR 05-JUN-1998; 98US-088202P.
PR 05-JUN-1998; 98US-088212P.
PR 05-JUN-1998; 98US-088217P.
PR 09-JUN-1998; 98US-088655P.
PR 10-JUN-1998; 98US-088734P.
PR 10-JUN-1998; 98US-088738P.
PR 10-JUN-1998; 98US-088742P.
PR 10-JUN-1998; 98US-088810P.
PR 10-JUN-1998; 98US-088824P.
PR 10-JUN-1998; 98US-088826P.
PR 11-JUN-1998; 98US-088858P.
PR 11-JUN-1998; 98US-088861P.
PR 11-JUN-1998; 98US-088876P.
PR 12-JUN-1998; 98US-089105P.
PR 16-JUN-1998; 98US-089440P.
PR 16-JUN-1998; 98US-089512P.
PR 16-JUN-1998; 98US-089514P.
PR 17-JUN-1998; 98US-089532P.
PR 17-JUN-1998; 98US-089538P.
PR 17-JUN-1998; 98US-089598P.
PR 17-JUN-1998; 98US-089599P.
PR 17-JUN-1998; 98US-089600P.
PR 17-JUN-1998; 98US-089653P.
PR 18-JUN-1998; 98US-089801P.
PR 18-JUN-1998; 98US-089907P.
PR 18-JUN-1998; 98US-089908P.
PR 28-AUG-2001; 2001US-0941992.
XX
PA (GETH) GENENTECH LTD.
XX
PI Ashkenazi AJ, Baker KP, Botstein D, Desnoyers L, Eaton DL;
PI Ferrara N, Fong S, Gerber H, Gerritsen ME, Goddard A, Godowski PJ;
PI Grimaldi JC, Gurney AL, Kljavin IJ, Napier MA, Pan J, Paoni NF;
PI Roy MA, Stewart TA, Tumas D, Watanabe CK, Williams PM, Wood WI;
PI Zhang Z;
XX
DR WPI; 2003-102117/09.
DR N-PSDB; ABX64090.
XX
PT Novel secreted and transmembrane polypeptide for modulating biological
PT activity of cell expressing the polypeptide, identifying agonists or
PT antagonists of polypeptide, and as molecular weight markers -
XX
PS Claim 12; Fig 151; 649pp; English.
XX
CC The present invention relates to the isolation of novel human PRO
CC polypeptides, and the polynucleotide sequences encoding them. The
CC PRO polypeptides are secreted and transmembrane proteins. The PRO
CC polypeptides are useful for detecting other PRO polypeptides, for
CC linking bioactive molecules to cells expressing PRO polypeptides,
CC for modulating biological activities of cells expressing PRO
CC polypeptides, and for for identifying agonists or antagonists.
CC The polynucleotide sequences encoding PRO polypeptides are useful as
CC hybridisation probes, in chromosome and gene mapping, in the generation
CC of antisense RNA and DNA, in the preparation of PRO polypeptides, for
CC generating transgenic animals or knockout animals, to construct
CC hybridisation probes for mapping the gene which encodes the PRO
CC polypeptide, and for the genetic analysis of individuals with genetic
CC disorders, in gene therapy, for chromosome identification, as
CC chromosome markers, and for generating probes for PCR, Northern
CC analysis, Southern analysis and Western analysis. ABU13860-ABU14006
CC represent the human PRO polypeptides of the invention.
CC Note: The sequence data for this patent was obtained in electronic
CC format directly from the USPTO web site at
CC seqdata.uspto.gov/psipsDIDEntry.html.
XX
SQ Sequence 265 AA;

Query Match 100.0%; Score 1409; DB 24; Length 265;
Best Local Similarity 100.0%; Pred. No. 2.9e-131;
Matches 265; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MGLPGLFCLAVLAASSFSKAREEEITPVVSIAYKVLEVFPKGRWVLITCCAPQPPPPITY 60
Db 1 MGLPGLFCLAVLAASSFSKAREEEITPVVSIAYKVLEVFPKGRWVLITCCAPQPPPPITY 60

Qy 61 SLCGTKNIKVAKKVVKTHEPASFNLNVTLKSSPDLLTYFCRASSTSGAHVDSARLQMHWE 120
Db 61 SLCGTKNIKVAKKVVKTHEPASFNLNVTLKSSPDLLTYFCRASSTSGAHVDSARLQMHWE 120

Qy 121 LWSKPVSELRANFTLQDRGAGPRVEMICQASSGSPPITNSLIGKDGQVHLQQRPCHRQPA 180
Db 121 LWSKPVSELRANFTLQDRGAGPRVEMICQASSGSPPITNSLIGKDGQVHLQQRPCHRQPA 180

Qy 181 NFSFLPSQTSDWFWCQAANNANVQHSALTVVPPGGDQKMEDWQGPLESPILALPLYRSTR 240
Db 181 NFSFLPSQTSDWFWCQAANNANVQHSALTVVPPGGDQKMEDWQGPLESPILALPLYRSTR 240

Qy 241 RLSEEEFGGFRIGNGEVRGRKAAAM 265
Db 241 RLSEEEFGGFRIGNGEVRGRKAAAM 265

RESULT 12
ABU10875
ID ABU10875 standard; Protein; 265 AA.
XX
AC ABU10875;
XX
DT 04-FEB-2003 (first entry)
XX
DE Human PRO polypeptide #61.
XX
KW Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW toxin; radiolabel; cell death; gene mapping; chromosome mapping;
KW protein electrophoresis; genetic disorder; immunosuppressive; cytostatic;
KW antibacterial.
XX
OS Homo sapiens.
XX
PN US2002123463-A1.
XX
PD 05-SEP-2002.
XX
PF 19-NOV-2001; 2001US-0989732.
XX
PR 05-NOV-1997; 97WO-US20069.
PR 16-SEP-1998; 98WO-US19330.
PR 17-SEP-1998; 98WO-US19437.
PR 07-OCT-1998; 98WO-US21141.
PR 01-DEC-1998; 98WO-US25108.
PR 05-JAN-1999; 99WO-US00106.
PR 08-MAR-1999; 99WO-US05028.
PR 02-JUN-1999; 99WO-US12252.
PR 15-SEP-1999; 99WO-US21090.
PR 15-SEP-1999; 99WO-US21547.

PR 30-NOV-1999; 99WO-US28313.
PR 01-DEC-1999; 99WO-US28301.
PR 01-DEC-1999; 99WO-US28634.
PR 16-DEC-1999; 99WO-US30095.
PR 20-DEC-1999; 99WO-US30911.
PR 06-JAN-2000; 2000WO-US00219.
PR 06-JAN-2000; 2000WO-US00376.
PR 11-FEB-2000; 2000WO-US03565.
PR 18-FEB-2000; 2000WO-US04341.
PR 22-FEB-2000; 2000WO-US04414.
PR 24-FEB-2000; 2000WO-US04914.
PR 24-FEB-2000; 2000WO-US05004.
PR 02-MAR-2000; 2000WO-US05841.
PR 10-MAR-2000; 2000WO-US06319.
PR 15-MAR-2000; 2000WO-US06884.
PR 20-MAR-2000; 2000WO-US07377.
PR 30-MAR-2000; 2000WO-US08439.
PR 15-MAY-2000; 2000WO-US13358.
PR 17-MAY-2000; 2000WO-US13705.
PR 22-MAY-2000; 2000WO-US14042.
PR 30-MAY-2000; 2000WO-US14941.
PR 02-JUN-2000; 2000WO-US15264.
PR 28-JUL-2000; 2000WO-US20710.
PR 11-AUG-2000; 2000WO-US22031.
PR 23-AUG-2000; 2000WO-US23522.
PR 24-AUG-2000; 2000WO-US23328.
PR 08-NOV-2000; 2000WO-US30952.
PR 01-DEC-2000; 2000WO-US32678.
PR 28-FEB-2001; 2001WO-US06520.
PR 01-JUN-2001; 2001WO-US17800.
PR 20-JUN-2001; 2001WO-US19692.
PR 29-JUN-2001; 2001WO-US21066.
PR 09-JUL-2001; 2001WO-US21735.
PR 16-JUN-1997; 97US-049787P.
PR 17-OCT-1997; 97US-062250P.
PR 12-NOV-1997; 97US-065186P.
PR 13-NOV-1997; 97US-065311P.
PR 24-NOV-1997; 97US-066770P.
PR 25-FEB-1998; 98US-075945P.
PR 20-MAR-1998; 98US-078910P.
PR 28-APR-1998; 98US-083322P.
PR 07-MAY-1998; 98US-084600P.
PR 28-MAY-1998; 98US-087106P.
PR 02-JUN-1998; 98US-087607P.
PR 02-JUN-1998; 98US-087609P.
PR 02-JUN-1998; 98US-087759P.
PR 03-JUN-1998; 98US-087827P.
PR 04-JUN-1998; 98US-088021P.
PR 04-JUN-1998; 98US-088025P.
PR 04-JUN-1998; 98US-088026P.
PR 04-JUN-1998; 98US-088028P.
PR 04-JUN-1998; 98US-088029P.
PR 04-JUN-1998; 98US-088030P.
PR 04-JUN-1998; 98US-088033P.
PR 04-JUN-1998; 98US-088326P.
PR 05-JUN-1998; 98US-088167P.
PR 05-JUN-1998; 98US-088202P.
PR 05-JUN-1998; 98US-088212P.
PR 05-JUN-1998; 98US-088217P.
PR 09-JUN-1998; 98US-088655P.
PR 10-JUN-1998; 98US-088734P.
PR 10-JUN-1998; 98US-088738P.
PR 10-JUN-1998; 98US-088742P.
PR 10-JUN-1998; 98US-088810P.
PR 10-JUN-1998; 98US-088824P.
PR 10-JUN-1998; 98US-088826P.
PR 11-JUN-1998; 98US-088858P.
PR 11-JUN-1998; 98US-088861P.
PR 11-JUN-1998; 98US-088876P.
PR 12-JUN-1998; 98US-089105P.
PR 16-JUN-1998; 98US-089440P.
PR 16-JUN-1998; 98US-089512P.
PR 16-JUN-1998; 98US-089514P.
PR 17-JUN-1998; 98US-089532P.
PR 17-JUN-1998; 98US-089538P.
PR 17-JUN-1998; 98US-089598P.
PR 17-JUN-1998; 98US-089599P.
PR 17-JUN-1998; 98US-089600P.
PR 17-JUN-1998; 98US-089653P.
PR 18-JUN-1998; 98US-089801P.
PR 18-JUN-1998; 98US-089907P.
PR 18-JUN-1998; 98US-089908P.
PR 28-AUG-2001; 2001US-0941992.
XX
PA (GETH) GENENTECH INC.
XX
PI Ashkenazi AJ, Baker KP, Botstein D, Desnoyers L, Eaton DL;
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PI Grimaldi JC, Gurney AL, Kljavin IJ, Napier MA, Pan J, Paoni NF;
PI Roy MA, Stewart TA, Tumas D, Watanabe CK, Williams PM, Wood WI;
PI Zhang Z;
XX
DR WPI; 2003-066810/06.
DR N-PSDB; ABX17054.
XX
PT Novel secreted and transmembrane polypeptide for modulating biological
PT activity of cell expressing the polypeptide, identifying agonists or
PT antagonists of polypeptide, and as molecular weight markers -
XX
PS Claim 12; Fig 151; 655pp; English.
XX
CC The invention relates to a secreted and transmembrane polypeptide, termed
CC PRO polypeptide, and the polynucleotide encoding it. The polypeptide is
CC useful for detecting PRO polypeptides and for linking a bioactive
CC molecule to a cell expressing the above polypeptides, where the bioactive
CC molecule is a toxin, radiolabel or an antibody. The bioactive material
CC causes the death of the cell. The polypeptide is useful for identifying
CC agonists or antagonists of the PRO polypeptide, for preparing variants of
CC PRO, as a molecular weight marker for protein electrophoresis purposes
CC and the PRO polynucleotide is useful for recombinantly expressing those
CC markers. The polynucleotide is also useful as a hybridisation probe, in
CC chromosome and gene mapping, in generation of antisense RNA and DNA, in
CC the preparation of PRO polypeptide, for generating transgenic animals or
CC knockout animals which in turn are useful in the development and
CC screening of therapeutically useful reagents, to construct hybridisation
CC probes for mapping the gene which encodes PRO and for the genetic
CC analysis of individuals with genetic disorders, in gene therapy, for
CC chromosome identification, as a chromosome marker and for generating
CC probes for PCR, Northern analysis, Southern analysis and Western
CC analysis. This sequence represents a human PRO polypeptide of the
CC invention.
XX
SQ Sequence 265 AA;

Query Match 100.0%; Score 1409; DB 24; Length 265;
Best Local Similarity 100.0%; Pred. No. 2.9e-131;
Matches 265; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MGLPGLFCLAVLAASSFSKAREEEITPVVSIAYKVLEVFPKGRWVLITCCAPQPPPPITY 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MGLPGLFCLAVLAASSFSKAREEEITPVVSIAYKVLEVFPKGRWVLITCCAPQPPPPITY 60

Qy         61 SLCGTKNIKVAKKVVKTHEPASFNLNVTLKSSPDLLTYFCRASSTSGAHVDSARLQMHWE 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 SLCGTKNIKVAKKVVKTHEPASFNLNVTLKSSPDLLTYFCRASSTSGAHVDSARLQMHWE 120

Qy        121 LWSKPVSELRANFTLQDRGAGPRVEMICQASSGSPPITNSLIGKDGQVHLQQRPCHRQPA 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LWSKPVSELRANFTLQDRGAGPRVEMICQASSGSPPITNSLIGKDGQVHLQQRPCHRQPA 180

Qy        181 NFSFLPSQTSDWFWCQAANNANVQHSALTVVPPGGDQKMEDWQGPLESPILALPLYRSTR 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 NFSFLPSQTSDWFWCQAANNANVQHSALTVVPPGGDQKMEDWQGPLESPILALPLYRSTR 240

Qy        241 RLSEEEFGGFRIGNGEVRGRKAAAM 265
              |||||||||||||||||||||||||
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Db        241 RLSEEEFGGFRIGNGEVRGRKAAAM 265


RESULT 13
AAG89176
ID   AAG89176 standard; Protein; 247 AA.
XX
AC   AAG89176;
XX
DT   11-SEP-2001  (first entry)
XX
DE   Human secreted protein, SEQ ID NO: 296.
XX
KW   Human; secreted protein; gene therapy; vaccine; treatment; diagnosis;
KW   GENSET.
XX
OS   Homo sapiens.
XX
PN   WO200142451-A2.
XX
PD   14-JUN-2001.
XX
PF   07-DEC-2000; 2000WO-IB01938.
XX
PR   08-DEC-1999;   99US-0169629.
PR   06-MAR-2000; 2000US-0187470.
XX
PA   (GEST ) GENSET.
XX
PI   Dumas Milne Edwards J,  Bougueleret L,  Jobert S;
XX
DR   WPI; 2001-367870/38.
DR   N-PSDB; AAH64779.
XX
PT   Full length GENSET human nucleic acids encoding potentially secreted
PT   proteins, useful in gene therapy and vaccination against a variety of
PT   diseases, and for diagnosis of those diseases -
XX
PS   Claim 21; Page 827-828; 921pp; English.
XX
CC   The invention relates to full length GENSET human nucleic acids encoding
CC   potentially secreted proteins. The nucleic acids and the polypeptides
CC   they encode may be used in the prevention, treatment and diagnosis of
CC   diseases associated with inappropriate GENSET gene expression. For
CC   example, they be used to treat disorders associated with decreased
CC   GENSET gene expression by rectifying mutations or deletions in a
CC   patient's genome that affect the activity of GENSET or by supplementing
CC   the patients own production of GENSET polypeptides. Conversely,
CC   antisense nucleic acid molecules may be administered to down regulate
CC   GENSET expression by binding with the cells' own genes and preventing
CC   their expression. The sense and antisense nucleic acids may also be
CC   used as DNA probes in diagnostic assays to detect and quantitate the
CC   presence of similar nucleic acid sequences in samples, and hence to
CC   determine which patients may be in need of restorative therapy.
CC   The GENSET polypeptides may be used as antigens in the production of
CC   antibodies and in assays to identify modulators (agonists and
CC   antagonists) of GENSET polypeptide expression and activity. The
CC   present sequence is a GENSET polypeptide of the invention.
XX
SQ   Sequence   247 AA;

  Query Match           81.5%;  Score 1149;  DB 22;  Length 247;
  Best Local Similarity  100.0%;  Pred. No. 1.6e-105;
  Matches  215;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MGLPGLFCLAVLAASSFSKAREEEITPVVSIAYKVLEVFPKGRWVLITCCAPQPPPPITY 60
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MGLPGLFCLAVLAASSFSKAREEEITPVVSIAYKVLEVFPKGRWVLITCCAPQPPPPITY 60

Qy         61 SLCGTKNIKVAKKVVKTHEPASFNLNVTLKSSPDLLTYFCRASSTSGAHVDSARLQMHWE 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 SLCGTKNIKVAKKVVKTHEPASFNLNVTLKSSPDLLTYFCRASSTSGAHVDSARLQMHWE 120

Qy        121 LWSKPVSELRANFTLQDRGAGPRVEMICQASSGSPPITNSLIGKDGQVHLQQRPCHRQPA 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 LWSKPVSELRANFTLQDRGAGPRVEMICQASSGSPPITNSLIGKDGQVHLQQRPCHRQPA 180

Qy        181 NFSFLPSQTSDWFWCQAANNANVQHSALTVVPPGG 215
              |||||||||||||||||||||||||||||||||||
Db        181 NFSFLPSQTSDWFWCQAANNANVQHSALTVVPPGG 215


RESULT 14
AAM24472
ID   AAM24472 standard; Protein; 232 AA.
XX
AC   AAM24472;
XX
DT   12-OCT-2001  (first entry)
XX
DE   Human EST encoded protein SEQ ID NO: 1997.
XX
KW   Human; sheep; pig; cow; fruit fly; yeast; hamster; macaque; horse;
KW   tomato; monkey; dog; sea urchin; expressed sequence tag; EST;
KW   diagnostics; forensic test; gene mapping; genetic disorder;
KW   biodiversity; gene therapy; nutrition.
XX
OS   Homo sapiens.
XX
PN   WO200154477-A2.
XX
PD   02-AUG-2001.
XX
PF   25-JAN-2001; 2001WO-US02687.
XX
PR   25-JAN-2000; 2000US-0491404.
PR   17-JUL-2000; 2000US-0617746.
PR   03-AUG-2000; 2000US-0631451.
PR   15-SEP-2000; 2000US-0663870.
XX
PA   (HYSE-) HYSEQ INC.
XX
PI   Tang YT,  Liu C,  Zhou P,  Qian XB,  Wang Z,  Chen R,  Asundi V;
PI   Cao Y,  Drmanac RA,  Zhang J,  Werhman T;
XX
DR   WPI; 2001-476164/51.
DR   N-PSDB; AAH99131.
XX
PT   Isolated polypeptide for treatment of diseases, diagnostics, raising
PT   antibodies and research use -
XX
PS   Claim 20; Page 1266; 1275pp; English.
XX
CC   The present invention provides the protein and coding sequences of novel
CC   proteins from a variety of organisms, including human, dog, cat, horse,
CC   cow, pig, hamster, monkey, macaque, yeast, bacteria, fruit fly, sea
CC   urchin and tomato. These were derived from expressed sequence tags (ESTs)
CC   from the organism of interest. They can be used in diagnostics,
CC   forensics, gene mapping, identification of mutations, to assess
CC   biodiversity and for nutritional purposes. The present sequence is a
CC   protein of the invention.
XX
SQ   Sequence   232 AA;

  Query Match           51.5%;  Score 725.5;  DB 22;  Length 232;
  Best Local Similarity  64.3%;  Pred. No. 1.6e-63;
  Matches  148;  Conservative   13;  Mismatches   56;  Indels   13;  Gaps    3;

Qy          1 MGLPGLFCLAVLAASSFSKAREEEITPVVSIAYKVLEVFPKGRWVLITCCAPQPPPPITY 60
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MGLPGLFCLAVLAASSFSKAREEEITPVVSIAYKVLEVFPKGRWVLITCCAPQPPPPITY 60

Qy         61 SLCGTKNIKVAKKVVKTHEPASFNLNVTLKSSPDLLTYFCRASSTSGAHVDSARLQMHWE 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 SLCGTKNIKVAKKVVKTHEPASFNLNVTLKSSPDLLTYFCRASSTSGAHVDSARLQMHWE 120
```

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Qy        121 LWSKPVSELRANFTLQDRGAGPRVEMICQASSGSPPITNSLIGKDGQVHLQQRPCHRQPA 180
              |||:           : :|      :: | :   |       |     : | |   |:
Db        121 LWSRQRG--------RPQGGDDLPGVLGQPTYHQQPDREGWAGPPAAETMPQEACQLSPS 172

Qy        181 NFSFLPSQTSDWFWCQAANNANVQHSALTV-VPPGGDQKMEDWQGPLESP 229
                  ::   ||||||        :| :  :|    |||||||||   |
Db        173 ----CRARHRTWFWCQACKQRQCSSTAPSQWLPQVVTQKMEDWQGPPGEP 218


RESULT 15
ABJ19682
ID   ABJ19682 standard; Protein; 235 AA.
XX
AC   ABJ19682;
XX
DT   03-APR-2003  (first entry)
XX
DE   Human secreted protein amino acid sequence - SEQ ID No 148.
XX
KW   Human; protein therapy; immediate hypersensitivity disease;
KW   allergic disorder; asthmatic disorder; gene therapy; secreted protein;
KW   hay fever; allergic conjunctivitis; allergic rhinitis;
KW   binding partner identification; chromosome identification;
KW   radiation hybrid mapping; long-range restriction mapping.
XX
OS   Homo sapiens.
XX
PN   WO200277188-A2.
XX
PD   03-OCT-2002.
XX
PF   26-MAR-2002; 2002WO-US09239.
XX
PR   27-MAR-2001; 2001US-278650P.
PR   12-SEP-2001; 2001US-0950082.
PR   12-SEP-2001; 2001US-0950083.
XX
PA   (HUMA-) HUMAN GENOME SCI INC.
XX
PI   Rosen CA,  Ruben SM;
XX
DR   WPI; 2003-175010/17.
XX
PT   Use of human secreted proteins and nucleic acids for preparing a
PT   diagnostic or pharmaceutical composition for diagnosing or treating
PT   allergic or asthmatic disorders, e.g. asthma, hay fever, or allergic
PT   conjunctivitis or rhinitis  -
XX
PS   Claim 1; Page 632-633; 823pp; English.
XX
CC   The invention comprises the amino acid and coding sequences of human
CC   secreted proteins. The DNA and protein sequences of the invention are
CC   useful for the diagnosis and treatment of allergic disorders, asthmatic
CC   disorders and immediate hypersensitivity diseases (e.g. hay fever,
CC   allergic conjunctivitis and allergic rhinitis). The proteins of the
CC   invention are also useful for identifying a binding partner. The nucleic
CC   acids of the invention are also useful for chromosome identification,
CC   radiation hybrid mapping or long-range restriction mapping. The present
CC   amino acid sequence represents a human secreted protein of the invention.
XX
SQ   Sequence   235 AA;

  Query Match             46.5%;  Score 654.5;  DB 24;  Length 235;
  Best Local Similarity   59.3%;  Pred. No. 1.8e-56;
  Matches  147;  Conservative   10;  Mismatches   44;  Indels   47;  Gaps    6;

Qy          1 MGLPGLFCLAVLAASSFSKAREEEITPVVSIAYKVLEVFPKGRWVLITCCAPQPPPPITY 60
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MGLPGLFCLAVLAASSFSKAREEEITPVVSIAYKVLEVFPKGRWVLITCCAPQPPPPITY 60

Qy         61 SLCGTKNIKVAKKVVKTHEPASFNLNVTLKSSPDLLTYFCRASSTSGAHVDSARLQMHWE 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 SLCGTKNIKVAKKVVKTHEPASFNLNVTLKSSPDLLTYFCRASSTSGAHVDSARLQMHWE 120

Qy        121 LWSKPVSELRANFTLQDRGAGPRVEMICQASSGSPPITNSLIGKDGQVHLQQRPCHR--- 177
              |||:                              | |   : | |  ||    |:|
Db        121 LWSR--------------------------QRGRPQGGDDLPGVLGQPTYHQQPDREGWA 154

Qy        178 -QPANFSFLPSQTSDWFWCQAANNANVQHSALTVVPPGGDQKMEDWQGPLESPILALPLY 236
               ||       ::|      ||     |       : |  ||  |:     | | : |    |
Db        155 GPPA------AETMPQAACQLLLPAEPDIGLVLV--PGCKQR----QCPAQRPHSGAP-- 200

Qy        237 RSTRRLSE 244
                 ||: :
Db        201 ---RRVXQ 205


RESULT 16
ABP99572
ID   ABP99572 standard; Protein; 235 AA.
XX
AC   ABP99572;
XX
DT   26-MAR-2003  (first entry)
XX
DE   Human secreted protein SEQ ID NO 516.
XX
KW   Human; secreted protein; nootropic; neuroprotective; cytostatic;
KW   virucide; dermatological; immunosuppressive; antiinflammatory; anti-HIV;
KW   vulnerary; antibacterial; antiparkinsonian; antisickling; antianaemic;
KW   antiarthritic; cancer; antirheumatic; hepatotropic; cerebroprotective;
KW   antiinflammatory; antiallergic; antidiabetic; antiulcer; anticonvulsant;
KW   antifungal; antiparasitic; cardiant; immune disorder; infection; vaccine;
KW   cardiovascular disorder; neurological disease; nephrotropic;
KW   gene therapy.
XX
OS   Homo sapiens.
XX
PN   WO200277186-A2.
XX
PD   03-OCT-2002.
XX
PF   26-MAR-2002; 2002WO-US09188.
XX
PR   27-MAR-2001; 2001US-278650P.
PR   12-SEP-2001; 2001US-0950082.
PR   12-SEP-2001; 2001US-0950083.
XX
PA   (HUMA-) HUMAN GENOME SCI INC.
XX
PI   Rosen CA,  Ruben SM;
XX
DR   WPI; 2003-040583/03.
DR   N-PSDB; ABZ66993.
XX
PT   New human secreted proteins encoded by genes contained in cDNA clones
PT   (e.g. HGCAC19), useful for preventing, treating or diagnosing e.g.
PT   AIDS, multiple sclerosis, herpes virus, leukemia, tick-borne
PT   encephalitis or West Nile fever  -
XX
PS   Claim 1; Page 1422; 2423pp; English.
XX
CC   The invention relates to novel human genes (ABZ66891-ABZ68209) and the
CC   encoded secreted proteins (ABP99470-ABP99872) useful for preventing,
CC   treating or ameliorating medical conditions e.g. by protein or gene
CC   therapy. The genes are isolated from a range of human tissues disclosed
CC   in the specification. The nucleic acids, proteins, antibodies and
CC   (ant)agonists are useful in the diagnosis, treatment and prevention of:
CC   (a) cancer, e.g. breast and ovarian cancer and other cancers of the
CC   adrenal gland, bone, bone marrow, breast, gastrointestinal tract, liver,
CC   lung or urogenital; (b) immune disorders e.g. Addison's disease,
CC   allergies, autoimmune haemolytic anaemia, autoimmune thyroiditis,
CC   diabetes mellitus, Crohn's disease, multiple sclerosis, rheumatoid
CC   arthritis and ulcerative colitis; (c) cardiovascular disorders such as
CC   myocardial ischaemias; (d) wound healing; (e) neurological diseases e.g.
CC   cerebral anoxia and epilepsy; and (f) infectious diseases such as viral,
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CC   bacterial, fungal and parasitic infections.
XX
SQ   Sequence   235 AA;

  Query Match             46.5%;  Score 654.5;  DB 24;  Length 235;
  Best Local Similarity   59.3%;  Pred. No. 1.8e-56;
  Matches  147;  Conservative   10;  Mismatches   44;  Indels   47;  Gaps    6;

Qy          1 MGLPGLFCLAVLAASSFSKAREEEITPVVSIAYKVLEVFPKGRWVLITCCAPQPPPPITY 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MGLPGLFCLAVLAASSFSKAREEEITPVVSIAYKVLEVFPKGRWVLITCCAPQPPPPITY 60

Qy         61 SLCGTKNIKVAKKVVKTHEPASFNLNVTLKSSPDLLTYFCRASSTSGAHVDSARLQMHWE 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 SLCGTKNIKVAKKVVKTHEPASFNLNVTLKSSPDLLTYFCRASSTSGAHVDSARLQMHWE 120

Qy        121 LWSKPVSELRANFTLQDRGAGPRVEMICQASSGSPPITNSLIGKDGQVHLQQRPCHR--- 177
              |||:                          | |   : | |  ||    |:|
Db        121 LWSR-------------------------QRGRPQGGDDLPGVLGQPTYHQQPDREGWA 154

Qy        178 -QPANFSFLPSQTSDWFWCQAANNANVQHSALTVVPPGGDQKMEDWQGPLESPILALPLY 236
               ||      ::|     ||     |      : |  ||  |:    | | : |    |
Db        155 GPPA------AETMPQAACQLLLPAEPDIGLVLV--PGCKQR----QCPAQRPHSGAP-- 200

Qy        237 RSTRRLSE 244
                ||: :
Db        201 ---RRVXQ 205


RESULT 17
AAB39216
ID   AAB39216 standard; Protein; 236 AA.
XX
AC   AAB39216;
XX
DT   02-FEB-2001  (first entry)
XX
DE   Human secreted protein sequence encoded by gene 38 SEQ ID NO:96.
XX
KW   Human; secreted protein; immunosuppressive; antiarthritic; antirheumatic;
KW   antiproliferative; cytostatic; cardiant; vasotropic; cerebroprotective;
KW   nootropic; neuroprotective; antibacterial; virucide; fungicide; neoplasm;
KW   opthalmalogical; autoimmune disease; rheumatoid arthritis; angiogenesis;
KW   hyperproliferative disorder; cardiovascular disorder; infection;
KW   cerebrovascular disorder; nervous system disorder; ocular disorder;
KW   wound healing; chemotaxis.
XX
OS   Homo sapiens.
XX
PN   WO200056754-A1.
XX
PD   28-SEP-2000.
XX
PF   16-MAR-2000; 2000WO-US06792.
XX
PR   19-MAR-1999;   99US-0125362.
PR   10-DEC-1999;   99US-0169980.
XX
PA   (HUMA-) HUMAN GENOME SCI INC.
XX
PI   Rosen GA,  Ruben SM,  Komatsoulis G;
XX
DR   WPI; 2000-579483/54.
DR   N-PSDB; AAC74260.
XX
PT   Isolated nucleic acid molecule encoding a human secreted protein is
PT   used in preventing, treating or ameliorating a medical condition  -
XX
PS   Claim 11; Page 386-387; 434pp; English.
XX
CC   The polynucleotide sequences given in AAC74223-C74279 encode the human
CC   secreted proteins represented in AAB39179-B39226. Sequences
CC   AAB39227-B39308 are alternative proteins encoded by the genes, and also
CC   protein sequences with which they share homology. The proteins have
CC   activities based on the tissues and cells in which they are expressed.
CC   Examples of activities include: immunosuppressive; antiarthritic;
CC   antirheumatic; antiproliferative; cytostatic; cardiant; vasotropic;
CC   cerebroprotective; nootropic; neuroprotective; antibacterial; virucide;
CC   fungicide; and opthalmalogical. The human secreted proteins,
CC   polynucleotides, antagonists and agonists of the invention may be useful
CC   in the treatment, prevention, and/or diagnosis of various disease,
CC   disorders and conditions such as autoimmune diseases e.g. rheumatoid
CC   arthritis, hyperproliferative disorders e.g. neoplasms of the breast or
CC   liver, cardiovascular disorders e.g. cardiac arrest, cerebrovascular
CC   disorders e.g. cerebral ischaemia, angiogenesis, nervous system disorders
CC   e.g. Alzheimer's disease, infections caused by bacteria, viruses and
CC   fungi and ocular disorders e.g. corneal infection. The polypeptides can
CC   also be used to aid wound healing and epithelial cell proliferation, to
CC   regenerate tissues, maintain organs before transplantation, in
CC   chemotaxis and as a food additive or preservative e.g. to increase
CC   storage capabilities. Sequences AAC74214-C74222 and AAB39178 are used
CC   during the isolation and characterisation of the genes of the invention.
XX
SQ   Sequence   236 AA;

  Query Match             46.5%;  Score 654.5;  DB 21;  Length 236;
  Best Local Similarity   59.3%;  Pred. No. 1.8e-56;
  Matches  147;  Conservative   10;  Mismatches   44;  Indels   47;  Gaps    6;

Qy          1 MGLPGLFCLAVLAASSFSKAREEEITPVVSIAYKVLEVFPKGRWVLITCCAPQPPPPITY 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MGLPGLFCLAVLAASSFSKAREEEITPVVSIAYKVLEVFPKGRWVLITCCAPQPPPPITY 60

Qy         61 SLCGTKNIKVAKKVVKTHEPASFNLNVTLKSSPDLLTYFCRASSTSGAHVDSARLQMHWE 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 SLCGTKNIKVAKKVVKTHEPASFNLNVTLKSSPDLLTYFCRASSTSGAHVDSARLQMHWE 120

Qy        121 LWSKPVSELRANFTLQDRGAGPRVEMICQASSGSPPITNSLIGKDGQVHLQQRPCHR--- 177
              |||:                          | |   : | |  ||    |:|
Db        121 LWSR-------------------------QRGRPQGGDDLPGVLGQPTYHQQPDREGWA 154

Qy        178 -QPANFSFLPSQTSDWFWCQAANNANVQHSALTVVPPGGDQKMEDWQGPLESPILALPLY 236
               ||      ::|     ||     |      : |  ||  |:    | | : |    |
Db        155 GPPA------AETMPQAACQLLLPAEPDIGLVLV--PGCKQR----QCPAQRPHSGAP-- 200

Qy        237 RSTRRLSE 244
                ||: :
Db        201 ---RRVXQ 205


RESULT 18
AAU21256
ID   AAU21256 standard; Protein; 175 AA.
XX
AC   AAU21256;
XX
DT   17-DEC-2001  (first entry)
XX
DE   Human novel foetal antigen, SEQ ID NO 1500.
XX
KW   Human; foetal tissue antigen; antiinflammatory; neuroprotective;
KW   immunomodulator; cardiovascular; cytostatic; nephrothropic;
KW   cardiovascular; autoimmune disease; rheumatoid arthritis;
KW   hyperproliferative disorder; breast neoplasm; cancer;
KW   cardiovascular disorder; cardiac arrest; cerebrovascular disorder;
KW   cerebral ischaemia; angiogenesis; nervous system disorder;
KW   Alzheimer's disease; infection; ocular disorder; corneal infection;
KW   wound healing; epithelial cell proliferation; food additive.
XX
OS   Homo sapiens.
XX
PN   WO200155312-A2.
XX
PD   02-AUG-2001.
XX
PF   17-JAN-2001; 2001WO-US01321.
```

XX
PR 31-JAN-2000; 2000US-0179065.
PR 04-FEB-2000; 2000US-0180628.
PR 24-FEB-2000; 2000US-0184664.
PR 02-MAR-2000; 2000US-0186350.
PR 16-MAR-2000; 2000US-0189874.
PR 17-MAR-2000; 2000US-0190076.
PR 18-APR-2000; 2000US-0198123.
PR 19-MAY-2000; 2000US-0205515.
PR 07-JUN-2000; 2000US-0209467.
PR 28-JUN-2000; 2000US-0214886.
PR 30-JUN-2000; 2000US-0215135.
PR 07-JUL-2000; 2000US-0216647.
PR 07-JUL-2000; 2000US-0216880.
PR 11-JUL-2000; 2000US-0217487.
PR 11-JUL-2000; 2000US-0217496.
PR 14-JUL-2000; 2000US-0218290.
PR 26-JUL-2000; 2000US-0220963.
PR 26-JUL-2000; 2000US-0220964.
PR 14-AUG-2000; 2000US-0224518.
PR 14-AUG-2000; 2000US-0224519.
PR 14-AUG-2000; 2000US-0225213.
PR 14-AUG-2000; 2000US-0225214.
PR 14-AUG-2000; 2000US-0225266.
PR 14-AUG-2000; 2000US-0225267.
PR 14-AUG-2000; 2000US-0225268.
PR 14-AUG-2000; 2000US-0225270.
PR 14-AUG-2000; 2000US-0225447.
PR 14-AUG-2000; 2000US-0225757.
PR 14-AUG-2000; 2000US-0225758.
PR 14-AUG-2000; 2000US-0225759.
PR 18-AUG-2000; 2000US-0226279.
PR 22-AUG-2000; 2000US-0226681.
PR 22-AUG-2000; 2000US-0226868.
PR 22-AUG-2000; 2000US-0227182.
PR 23-AUG-2000; 2000US-0227009.
PR 30-AUG-2000; 2000US-0228924.
PR 01-SEP-2000; 2000US-0229287.
PR 01-SEP-2000; 2000US-0229343.
PR 01-SEP-2000; 2000US-0229344.
PR 01-SEP-2000; 2000US-0229345.
PR 05-SEP-2000; 2000US-0229509.
PR 05-SEP-2000; 2000US-0229513.
PR 06-SEP-2000; 2000US-0230437.
PR 06-SEP-2000; 2000US-0230438.
PR 08-SEP-2000; 2000US-0231242.
PR 08-SEP-2000; 2000US-0231243.
PR 08-SEP-2000; 2000US-0231244.
PR 08-SEP-2000; 2000US-0231413.
PR 08-SEP-2000; 2000US-0231414.
PR 08-SEP-2000; 2000US-0232080.
PR 08-SEP-2000; 2000US-0232081.
PR 12-SEP-2000; 2000US-0231968.
PR 14-SEP-2000; 2000US-0232397.
PR 14-SEP-2000; 2000US-0232398.
PR 14-SEP-2000; 2000US-0232399.
PR 14-SEP-2000; 2000US-0232400.
PR 14-SEP-2000; 2000US-0232401.
PR 14-SEP-2000; 2000US-0233063.
PR 14-SEP-2000; 2000US-0233064.
PR 14-SEP-2000; 2000US-0233065.
PR 21-SEP-2000; 2000US-0234223.
PR 21-SEP-2000; 2000US-0234274.
PR 25-SEP-2000; 2000US-0234997.
PR 25-SEP-2000; 2000US-0234998.
PR 26-SEP-2000; 2000US-0235484.
PR 27-SEP-2000; 2000US-0235834.
PR 27-SEP-2000; 2000US-0235836.
PR 29-SEP-2000; 2000US-0236327.
PR 29-SEP-2000; 2000US-0236367.
PR 29-SEP-2000; 2000US-0236368.
PR 29-SEP-2000; 2000US-0236369.
PR 29-SEP-2000; 2000US-0236370.
PR 02-OCT-2000; 2000US-0236802.
PR 02-OCT-2000; 2000US-0237037.
PR 02-OCT-2000; 2000US-0237038.
PR 02-OCT-2000; 2000US-0237039.
PR 02-OCT-2000; 2000US-0237040.
PR 13-OCT-2000; 2000US-0239935.
PR 13-OCT-2000; 2000US-0239937.
PR 20-OCT-2000; 2000US-0240960.
PR 20-OCT-2000; 2000US-0241221.
PR 20-OCT-2000; 2000US-0241785.
PR 20-OCT-2000; 2000US-0241786.
PR 20-OCT-2000; 2000US-0241787.
PR 20-OCT-2000; 2000US-0241808.
PR 20-OCT-2000; 2000US-0241809.
PR 20-OCT-2000; 2000US-0241826.
PR 01-NOV-2000; 2000US-0244617.
PR 08-NOV-2000; 2000US-0246474.
PR 08-NOV-2000; 2000US-0246475.
PR 08-NOV-2000; 2000US-0246476.
PR 08-NOV-2000; 2000US-0246477.
PR 08-NOV-2000; 2000US-0246478.
PR 08-NOV-2000; 2000US-0246523.
PR 08-NOV-2000; 2000US-0246524.
PR 08-NOV-2000; 2000US-0246525.
PR 08-NOV-2000; 2000US-0246526.
PR 08-NOV-2000; 2000US-0246527.
PR 08-NOV-2000; 2000US-0246528.
PR 08-NOV-2000; 2000US-0246532.
PR 08-NOV-2000; 2000US-0246609.
PR 08-NOV-2000; 2000US-0246610.
PR 08-NOV-2000; 2000US-0246611.
PR 08-NOV-2000; 2000US-0246613.
PR 17-NOV-2000; 2000US-0249207.
PR 17-NOV-2000; 2000US-0249208.
PR 17-NOV-2000; 2000US-0249209.
PR 17-NOV-2000; 2000US-0249210.
PR 17-NOV-2000; 2000US-0249211.
PR 17-NOV-2000; 2000US-0249212.
PR 17-NOV-2000; 2000US-0249213.
PR 17-NOV-2000; 2000US-0249214.
PR 17-NOV-2000; 2000US-0249215.
PR 17-NOV-2000; 2000US-0249216.
PR 17-NOV-2000; 2000US-0249217.
PR 17-NOV-2000; 2000US-0249218.
PR 17-NOV-2000; 2000US-0249244.
PR 17-NOV-2000; 2000US-0249245.
PR 17-NOV-2000; 2000US-0249264.
PR 17-NOV-2000; 2000US-0249265.
PR 17-NOV-2000; 2000US-0249297.
PR 17-NOV-2000; 2000US-0249299.
PR 17-NOV-2000; 2000US-0249300.
PR 01-DEC-2000; 2000US-0250160.
PR 01-DEC-2000; 2000US-0250391.
PR 05-DEC-2000; 2000US-0251030.
PR 05-DEC-2000; 2000US-0251988.
PR 05-DEC-2000; 2000US-0256719.
PR 06-DEC-2000; 2000US-0251479.
PR 08-DEC-2000; 2000US-0251856.
PR 08-DEC-2000; 2000US-0251868.
PR 08-DEC-2000; 2000US-0251869.
PR 08-DEC-2000; 2000US-0251989.
PR 08-DEC-2000; 2000US-0251990.
PR 11-DEC-2000; 2000US-0254097.
PR 05-JAN-2001; 2001US-0259678.
XX
PA (HUMA-) HUMAN GENOME SCI INC.
XX
PI Rosen CA, Barash SC, Ruben SM;
XX
DR WPI; 2001-488782/53.
DR N-PSDB; AAS34076.
XX
PT New polynucleotides and polypeptides for diagnosing, treating,

```
PT   preventing or prognosing e.g. diseases or disorders of the nervous,
PT   musculoskeletal, excretory, gastrointestinal, reproductive, and
PT   respiratory systems -
XX
PS   Claim 11; SEQ ID No 1500; 642pp; English.
XX
CC   The invention relates to novel nucleic acids encoding novel human foetal
CC   antigens. The nucleic acids and proteins are used to prevent, treat (e.g.
CC   by gene therapy) or ameliorate a medical condition in e.g. humans, mice,
CC   rabbits, goats, horses, cats, dogs, chickens or sheep. They
CC   are also used in diagnosing a pathological condition or susceptibility
CC   to a pathological condition. The antibodies to the antigens can also
CC   be used in alleviating symptoms associated with the disorders and in
CC   diagnostic immunoassays e.g. radioimmunoassays or enzyme linked
CC   immunosorbent assays (ELISA). Disorders which are diagnosed or treated
CC   include autoimmune diseases e.g. rheumatoid arthritis,
CC   hyperproliferative disorders e.g. neoplasms of the breast or liver,
CC   cardiovascular disorders e.g. cardiac arrest, cerebrovascular disorders
CC   e.g. cerebral ischaemia, angiogenesis, nervous system disorders e.g.
CC   Alzheimer's disease, infections caused by bacteria, viruses and fungi
CC   and ocular disorders e.g. corneal infection. The polypeptides can also
CC   be used to aid wound healing and epithelial cell proliferation, to
CC   prevent skin aging due to sunburn, to maintain organs before
CC   transplantation, for supporting cell culture of primary tissues, to
CC   regenerate tissues and in chemotaxis. The polypeptides can also be used
CC   as a food additive or preservative to increase or decrease storage
CC   capabilities, fat content, lipid, protein, carbohydrate, vitamins,
CC   minerals, cofactors and other nutritional components. Numerous
CC   examples of diseases and disorders treated by the nucleic acids and
CC   proteins are given in the specification. The present sequence
```

```
  Query Match             45.1%;  Score 636;  DB 22;  Length 175;
  Best Local Similarity   96.0%;  Pred. No. 8.2e-55;
  Matches  120;  Conservative    2;  Mismatches    3;  Indels    0;  Gaps    0;

Qy         18 SKAREEEITPVVSIAYKVLEVFPKGRWVLITCCAPQPPPPITYSLCGTKNIKVAKKVVKT 77
              |::  ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         48 SQSPSLEITPVVSIAYKVLEVFPKGRWVLITCCAPQPPPPITYSLCGTKNIKVAKKVVKT 107

Qy         78 HEPASFNLNVTLKSSPDLLTYFCRASSTSGAHVDSARLQMHWELWSKPVSELRANFTLQD 137
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        108 HEPASFNLNVTLKSSPDLLTYFCRASSTSGAHVDSARLQMHWELWSKPVSELRANFTLQD 167

Qy        138 RGAGP 142
              |||||
Db        168 RGAGP 172
```

```
RESULT 19
AAB82313
ID   AAB82313 standard; Protein; 759 AA.
XX
AC   AAB82313;
XX
DT   23-JUL-2001  (first entry)
XX
DE   Human immunoglobulin receptor isoform IRTA2a.
XX
KW   Immunoglobulin superfamily receptor translocation associated; IRTA;
KW   IRTA2a; human; immunoglobulin receptor; Fc receptor; melanoma;
KW   lymphoma; myeloma; B cell malignancy; cancer; chromosome 1q21;
KW   diagnosis; therapy.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Peptide         1..15
FT                   /label= Signal_peptide
FT   Protein         16..759
FT                   /label= Mature_protein
FT   Modified-site   132..134
FT                   /note= "Asn is N-glycosylated"
FT   Modified-site   383..385
FT                   /note= "Asn is N-glycosylated"
FT   Modified-site   621..623
FT                   /note= "Asn is N-glycosylated"
FT   Modified-site   631..633
FT                   /note= "Asn is N-glycosylated"
FT   Modified-site   714..716
FT                   /note= "Asn is N-glycosylated"
XX
PN   WO200138490-A2.
XX
PD   31-MAY-2001.
XX
PF   28-NOV-2000; 2000WO-US32403.
XX
PR   29-NOV-1999;   99US-0168151.
XX
PA   (UYCO ) UNIV COLUMBIA NEW YORK.
XX
PI   Dalla-Favera R;
XX
DR   WPI; 2001-355921/37.
DR   N-PSDB; AAF30950.
XX
PT   New genes encoding immunoglobulin receptor, Immunoglobulin super
PT   Receptor Translocation Associated proteins, used to treat B cell
PT   malignancies including lymphomas and multiple myeloma -
XX
PS   Claim 3; Fig 18B-1-18B-2; 72pp; English.
XX
CC   The present sequence is that of the novel human immunoglobulin
CC   receptor, immunoglobulin superfamily receptor translocation
CC   associated protein isoform 2a (IRTA2a), an Fc receptor involved in
CC   the pathogenesis of lymphoma and melanoma.  Efforts to identify
CC   genes involved in chromosomal aberrations affecting band 1q21 in
CC   multiple myeloma and B cell lymphoma led to the discovery of IRTA2
CC   and IRTA1 (see AAB82312) as founding members of a novel subfamily
CC   of related receptors within the immunoreceptor family.  The IRTA2
CC   locus is transcribed into 3 major mRNA isoforms, IRTA2a, IRTA2b and
CC   IRTA2c (see also AAB82314 and AAB82315).  IRTA2a is a 759 amino
CC   acid secreted glycoprotein with 8 Ig-type domains followed by a
CC   a unique C-terminus.  IRTA2b diverges from IRTA2a at residue 560,
CC   extending for a further 32 residues.  IRTA2c diverges from IRTA2a at
CC   residue 746 and extends for a further 231 residues.  The IRTA genes
CC   display a specific pattern of expression in mature B cells.  IRTA2
CC   is expressed in GC centrocytes and in perifollicular cells, which may
CC   include immunoblasts and memory cells.  The invention provides IRTA
CC   nucleic acids and proteins, and antibodies directed to an epitope
CC   of an IRTA protein.  Methods are claimed for: detecting a B cell
CC   malignancy comprising a 1q21 chromosomal rearrangement using a
CC   nucleic acid molecule that specifically hybridises with a unique
CC   sequence of human IRTA1-5; and treating a subject having a B
CC   cell cancer by administering an anti-IRTA antibody or an antisense
CC   oligonucleotide that specifically hybridises to IRTA mRNA so as
CC   to prevent overexpression of IRTA protein and hence to arrest
CC   cell growth or induce cell death of cancer cells expressing IRTA.
CC   The B cell cancer is selected from B cell lymphoma, mantle cell
CC   lymphoma, multiple myeloma, Burkitt's lymphoma, marginal zone
CC   lymphoma, diffuse large cell lymphoma and follicular lymphoma.  The
CC   B cell lymphoma is selected from mucosa-associated-lymphoid tissue
CC   B cell lymphoma or non-Hodgkin's lymphoma.
XX
SQ   Sequence   759 AA;
```

```
  Query Match              8.1%;  Score 114.5;  DB 22;  Length 759;
  Best Local Similarity   25.1%;  Pred. No. 0.038;
  Matches   57;  Conservative   40;  Mismatches  105;  Indels   25;  Gaps   11;

Qy         13 AASSFSKAREEEITPVVSIAYK----VLEVFPKGRWVL-----ITCCAPQPPPPITYSLC 63
              | : |   | | ::  |::         | | |: : |:     : | ||:  ||| |
Db        543 ADNGFGPQRSEVVSLFVTVPVSRPILTLRV-PRAQAVVGDLLELHCEAPRGSPPILYWFY 601

Qy         64 GTKNIKVAKKVVKTHEPASFNLNVTLKSSPDLLTYFCRASSTSGA-HVDSARLQMHWELW 122
                ::: :      :   |||||::| : | :   | | |::   | | |:  | :   :
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Db        602 -HEDVTLGSSSAPSGGEASFNLSLTAEHSGN---YSCEANNGLVAQHSDTISLSVIVPV- 656

Qy        123 SKPVSELRANFTLQDRGAGPRVEMICQASSGSPPITNSLIGKDGQVHLQQRPCHRQPANF 182

Db        657 SRPILTFRA--PRAQAVVGDLLELHCEALRGSSPILYWFYHEDVTLGKISAP-SGGGASF 713

Qy        183 SF-LPSQTSDWFWCQAANNANVQHSALTVVPPGGDQKMEDWQGPLES 228

Db        714 NLSLTTEHSGIYSCEADNGLEAQRSEMVTLKVAG-----EWALPTSS 755


RESULT 20
AAB82315
ID   AAB82315 standard; Protein; 977 AA.
XX
AC   AAB82315;
XX
DT   23-JUL-2001  (first entry)
XX
DE   Human immunoglobulin receptor isoform IRTA2c.
XX
KW   Immunoglobulin superfamily receptor translocation associated; IRTA;
KW   IRTA2c; human; immunoglobulin receptor; Fc receptor; melanoma;
KW   lymphoma; myeloma; B cell malignancy; cancer; chromosome 1q21;
KW   diagnosis; therapy.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Peptide         1..15
FT                   /label= Signal_peptide
FT   Protein         16..977
FT                   /label= Mature_protein
FT   Domain          851..873
FT                   /note= "transmembrane domain"
FT   Modified-site   132..134
FT                   /note= "Asn is N-glycosylated"
FT   Modified-site   383..385
FT                   /note= "Asn is N-glycosylated"
FT   Modified-site   621..623
FT                   /note= "Asn is N-glycosylated"
FT   Modified-site   631..633
FT                   /note= "Asn is N-glycosylated"
FT   Modified-site   714..716
FT                   /note= "Asn is N-glycosylated"
FT   Modified-site   795..797
FT                   /note= "Asn is N-glycosylated"
FT   Modified-site   806..808
FT                   /note= "Asn is N-glycosylated"
FT   Modified-site   816..818
FT                   /note= "Asn is N-glycosylated"
FT   Modified-site   843..845
FT                   /note= "Asn is N-glycosylated"
FT   Binding-site    899..902
FT                   /note= "putative consensus Src-homology 2 (SH2)
FT                   binding domain"
FT   Binding-site    924..927
FT                   /note= "putative consensus Src-homology 2 (SH2)
FT                   binding domain"
FT   Binding-site    954..957
FT                   /note= "putative consensus Src-homology 2 (SH2)
FT                   binding domain"
XX
PN   WO200138490-A2.
XX
PD   31-MAY-2001.
XX
PF   28-NOV-2000; 2000WO-US32403.
XX
PR   29-NOV-1999;   99US-0168151.
XX
PA   (UYCO ) UNIV COLUMBIA NEW YORK.
XX
PI   Dalla-Favera R;
XX
DR   WPI; 2001-355921/37.
DR   N-PSDB; AAF30952.
XX
PT   New genes encoding immunoglobulin receptor, Immunoglobulin super
PT   Receptor Translocation Associated proteins, used to treat B cell
PT   malignancies including lymphomas and multiple myeloma -
XX
PS   Claim 3; Fig 18B-1-18B-2; 72pp; English.
XX
CC   The present sequence is that of the novel human immunoglobulin
CC   receptor, immunoglobulin superfamily receptor translocation
CC   associated protein isoform 2c (IRTA2c), an Fc receptor involved in
CC   the pathogenesis of lymphoma and melanoma.  Efforts to identify
CC   genes involved in chromosomal aberrations affecting band 1q21 in
CC   multiple myeloma and B cell lymphoma led to the discovery of IRTA2
CC   and IRTA1 (see AAB82312) as founding members of a novel subfamily
CC   of related receptors within the immunoreceptor family.  The IRTA2
CC   locus is transcribed into 3 major mRNA isoforms, IRTA2a, IRTA2b and
CC   IRTA2c (see also AAB82313 and AAB82314).  IRTA2c is the longest
CC   isoform.  It is a type I transmembrane glycoprotein.  Each SH2
CC   binding site agrees with the immune receptor tyrosine-based inhibition
CC   motif (ITIM) consensus and is encoded by a separate exon.  The IRTA
CC   genes display a specific pattern of expression in mature B cells.
CC   IRTA2 is expressed in GC centrocytes and in perifollicular cells,
CC   which may include immunoblasts and memory cells.  The invention
CC   provides IRTA nucleic acids and proteins, and antibodies directed to
CC   epitopes of IRTA proteins.  Methods are claimed for: detecting a B
CC   cell malignancy comprising a 1q21 chromosomal rearrangement using a
CC   nucleic acid molecule that specifically hybridises with a unique
CC   sequence of human IRTA1-5; and treating a subject having a B
CC   cell cancer by administering an anti-IRTA antibody or an antisense
CC   oligonucleotide that specifically hybridises to IRTA mRNA so as
CC   to prevent overexpression of IRTA protein and hence to arrest
CC   cell growth or induce cell death of cancer cells expressing IRTA.
CC   The B cell cancer is selected from B cell lymphoma, mantle cell
CC   lymphoma, multiple myeloma, Burkitt's lymphoma, marginal zone
CC   lymphoma, diffuse large cell lymphoma and follicular lymphoma.  The
CC   B cell lymphoma is selected from mucosa-associated-lymphoid tissue
CC   B cell lymphoma or non-Hodgkin's lymphoma.
XX
SQ   Sequence   977 AA;

  Query Match             7.8%;  Score 110.5;  DB 22;  Length 977;
  Best Local Similarity   24.6%;  Pred. No. 0.13;
  Matches   57;  Conservative   41;  Mismatches  105;  Indels   29;  Gaps   11;

Qy         13 AASSFSKAREEEITPVVSIAYK----VLEVFPKGRWVL-----ITCCAPQPPPPITYSLC 63

Db        543 ADNGFGPQRSEVVSLFVTVPVSRPILTLRV-PRAQAVVGDLLELHCEAPRGSPPILYWFY 601

Qy         64 GTKNIKVAKKVVKTHEPASFNLNVTLKSSPDLLTYFCRASSTSGA-HVDSARLQMHWELW 122

Db        602 -HEDVTLGSSSAPSGGEASFNLSLTAEHSGN---YSCEANNGLVAQHSDTISLSVIVPV- 656

Qy        123 SKPVSELRANFTLQDRGAGPRVEMICQASSGSPPITNSLIGKDGQVHLQQRPCHRQPANF 182

Db        657 SRPILTFRA--PRAQAVVGDLLELHCEALRGSSPILYWFYHEDVTLGKISAP-SGGGASF 713

Qy        183 SF-LPSQTSDWFWCQAANNANVQHSALTVVPPGGDQKMEDWQGPLESPILAL 233

Db        714 NLSLTTEHSGIYSCEADNGLEAQRSEMVTLKVA---------VPVSRPVLTL 756


RESULT 21
AAB82317
ID   AAB82317 standard; Protein; 508 AA.
XX
AC   AAB82317;
XX
DT   23-JUL-2001  (first entry)
XX
```

```
DE   Human immunoglobulin receptor IRTA4 protein.
XX
KW   Immunoglobulin superfamily receptor translocation associated;
KW   IRTA4; human; immunoglobulin receptor; Fc receptor; melanoma;
KW   lymphoma; myeloma; B cell malignancy; cancer; chromosome 1q21;
KW   diagnosis; therapy.
XX
OS   Homo sapiens.
XX
PN   WO200138490-A2.
XX
PD   31-MAY-2001.
XX
PF   28-NOV-2000; 2000WO-US32403.
XX
PR   29-NOV-1999;   99US-0168151.
XX
PA   (UYCO ) UNIV COLUMBIA NEW YORK.
XX
PI   Dalla-Favera R;
XX
DR   WPI; 2001-355921/37.
DR   N-PSDB; AAF30954.
XX
PT   New genes encoding immunoglobulin receptor, Immunoglobulin super
PT   Receptor Translocation Associated proteins, used to treat B cell
PT   malignancies including lymphomas and multiple myeloma -
XX
PS   Claim 5; Fig 18D-1-18D-2; 72pp; English.
XX
CC   The present sequence is that of the novel human immunoglobulin
CC   receptor, immunoglobulin superfamily receptor translocation
CC   associated protein 4 (IRTA4), an Fc receptor involved in the
CC   pathogenesis of lymphoma and melanoma. Efforts to identify genes
CC   involved in chromosomal aberrations affecting band 1q21 in multiple
CC   myeloma and B cell lymphoma led to the discovery of IRTA1 and IRTA2
CC   (see AAB82312-15) as founding members of a novel subfamily of related
CC   receptors within the immunoreceptor family. 3 Additional proteins,
CC   IRTA3, IRTA4 and IRTA5 (see AAB82316-18), were subsequently
CC   identified, which are also members of this novel subfamily. The
CC   IRTA genes display a specific pattern of expression in mature B
CC   cells. IRTA4 is selectively expressed in mantle zone C cells, the
CC   pre-GC compartment of mature B cells. The invention provides IRTA
CC   nucleic acids, proteins, and antibodies directed to epitopes of
CC   IRTA proteins. Methods are claimed for: detecting a B cell malignancy
CC   comprising a 1q21 chromosomal rearrangement using a nucleic acid
CC   molecule that specifically hybridises with a unique sequence of
CC   human IRTA1-5; and treating a subject having a B cell cancer by
CC   administering an anti-IRTA antibody or an antisense oligonucleotide
CC   that specifically hybridises to IRTA mRNA so as to prevent
CC   overexpression of IRTA protein and hence to arrest cell growth or
CC   induce cell death of cancer cells expressing IRTA. The B cell
CC   cancer is selected from B cell lymphoma, mantle cell lymphoma,
CC   multiple myeloma, Burkitt's lymphoma, marginal zone lymphoma,
CC   diffuse large cell lymphoma and follicular lymphoma. The B cell
CC   lymphoma is selected from mucosa-associated-lymphoid tissue B cell
CC   lymphoma or non-Hodgkin's lymphoma.
XX
SQ   Sequence   508 AA;

  Query Match             7.5%;  Score 105;  DB 22;  Length 508;
  Best Local Similarity   26.3%;  Pred. No. 0.19;
  Matches   61;  Conservative   27;  Mismatches   96;  Indels   48;  Gaps   11;

Qy         41 KGRWVLITCCAPQPPPPITYS----LCGTKNIKVAKKVVKTHEPASFNLNVTLKSSPDLL 96
              :|: ::: |        :|:|      ||   |      ||   |  | :      |
Db        218 EGQKLILLCSVAGGTGNVTFSWYREATGTSMGK------KTQRSLSAELEIPAVKESDAG 271

Qy         97 TYFCRASSTSGAHVDSARLQMHWELWSK--------PVSELRANFTLQDRGA----GPRV 144
              |:||| :          |  : ||        |||  |   ||:  ||    |  :
Db        272 KYYCRADNG-----------HVPIQSKVVNIPVRIPVS--RPVLTLRSPGAQAAVGDLL 317

Qy        145 EMICQASSGSPPITNSLIGKDGQVHLQQRPCHRQPANFSF-LPSQTSDWFWCQAANNANV 203
```

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              |: |:|  |||||      :|  :      |      |:|:  | :: |  : |:| |
Db        318 ELHCEALRGSPPILYQFYHEDVTLGNSSAP-SGGGASFNLSLTAEHSGNYSCEANNGLGA 376

Qy        204 QHS-ALTVVPPGGDQKMED-------WQ--GPLESPILALPLYRSTRRLSEE 245
              | | |: |   | |     |       |   | |    :|| ||    ::| |
Db        377 QCSEAVPVSISGPDGYRRDLMTAGVLWGLFGVLGFTGVALLLYALFHKISGE 428


RESULT 22
AAY27129
ID   AAY27129 standard; Protein; 343 AA.
XX
AC   AAY27129;
XX
DT   14-SEP-1999  (first entry)
XX
DE   Human bone marrow-derived polypeptide (clone OAF038-Leu).
XX
KW   Brain tissue; human; bone marrow; umbilical cord venous endothelial cell;
KW   recombinant; diagnosis; treatment.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Peptide         1..19
FT                   /note= "signal peptide"
FT   Protein         20..343
FT                   /note= "mature protein"
XX
PN   WO9933873-A1.
XX
PD   08-JUL-1999.
XX
PF   25-DEC-1998;   98WO-JP05952.
XX
PR   26-DEC-1997;   97JP-0358811.
XX
PA   (ONOY ) ONO PHARM CO LTD.
XX
PI   Fukushima D,  Shibayama S,  Tada H;
XX
DR   WPI; 1999-419088/35.
DR   N-PSDB; AAX89116, AAX89117.
XX
PT   New adult human brain tissue-produced polypeptides useful for
PT   diagnosis and treatment
XX
PS   Claim 1; Page 54-55; 86pp; Japanese.
XX
CC   The invention provides polypeptides (AAY27127-Y27133) produced by human
CC   adult brain tissue, human bone marrow or a human umbilical cord venous
CC   endothelial cell. Host cells transformed with vectors comprising the
CC   nucleic acids encoding the polypeptides are used for the recombinant
CC   expression of the polypeptides. The polypeptides can be used in
CC   diagnosis, treatment and basic studies, with wide applications in
CC   treatment depending on the activity to be aimed at. Sequences
CC   AAX89112-125 represent nucleic acids encoding the polypeptides.
XX
SQ   Sequence   343 AA;

  Query Match             7.2%;  Score 101.5;  DB 20;  Length 343;
  Best Local Similarity   26.4%;  Pred. No. 0.24;
  Matches   55;  Conservative   27;  Mismatches   67;  Indels   59;  Gaps   13;

Qy         37 EVFPKGRWVLITCCAPQPPPPITYSL------CGTKNIKVAKKVVKTHEPASFNLNVT-- 88
              :|  ||: | : |          |||||        ||:: |          ||| |||::|
Db         44 KVVMKGQNVSMFCSHKNKSLQITYSLFRRKTHLGTQDGK--------GEPAIFNLSITEA 95

Qy         89 LKSSPDLLTYFCRASSTSGAH---------VDSARLQMHWELWSKPVSELRANFTLQDRG 139
              :| |    | |:|  || :           ||             : ||  :    |  ||
Db         96 HESGP----YKCKAQVTSCSKYSRDFSFTIVDPV---------TSPVLNIMVIQTETDR- 141

Qy        140 AGPRVEMICQASSGSPPITNSLIGKDGQVHLQQRPC----HRQPANFSFL---PSQTSDW 192
```

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                 : : | : :|| ||  :      : |:   |      |:|| |:     | :  :
Db        142 ---HITLHCLSVNGSLPINYTFF----ENHVAISPAISKYDREPAEFNLTKKNPGEEEE- 193

Qy        193 FWCQAANN----ANVQHSALTVVPPGGD 216
              : |:|  |     |   |  :|:   |||
Db        194 YRCEAKNRLPNYATYSH-PVTMPSTGGD 220
```

RESULT 23
AAY27130
ID AAY27130 standard; Protein; 343 AA.
XX
AC AAY27130;
XX
DT 14-SEP-1999 (first entry)
XX
DE Human bone marrow-derived polypeptide (clone OAF038-Pro).
XX
KW Brain tissue; human; bone marrow; umbilical cord venous endothelial cell;
KW recombinant; diagnosis; treatment.
XX
OS Homo sapiens.
XX
FH Key   Location/Qualifiers
FT Peptide   1..19
FT   /note= "signal peptide"
FT Protein   20..343
FT   /note= "mature protein"
XX
PN WO9933873-A1.
XX
PD 08-JUL-1999.
XX
PF 25-DEC-1998; 98WO-JP05952.
XX
PR 26-DEC-1997; 97JP-0358811.
XX
PA (ONOY) ONO PHARM CO LTD.
XX
PI Fukushima D, Shibayama S, Tada H;
XX
DR WPI; 1999-419088/35.
DR N-PSDB; AAX89118, AAX89119.
XX
PT New adult human brain tissue-produced polypeptides useful for
PT diagnosis and treatment
XX
PS Claim 1; Page 59-60; 86pp; Japanese.
XX
CC The invention provides polypeptides (AAY27127-Y27133) produced by human
CC adult brain tissue, human bone marrow or a human umbilical cord venous
CC endothelial cell. Host cells transformed with vectors comprising the
CC nucleic acids encoding the polypeptides are used for the recombinant
CC expression of the polypeptides. The polypeptides can be used in
CC diagnosis, treatment and basic studies, with wide applications in
CC treatment depending on the activity to be aimed at. Sequences
CC AAX89112-125 represent nucleic acids encoding the polypeptides.
XX
SQ Sequence 343 AA;

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  Query Match             7.2%;  Score 101.5;  DB 20;  Length 343;
  Best Local Similarity   26.2%;  Pred. No. 0.24;
  Matches   55;  Conservative   25;  Mismatches   67;  Indels   63;  Gaps   13;

Qy         37 EVFPKGRWVLITCCAPQPPPPITYSLCGTKNIKVAKKVVKTH--------EPASFNLNVT 88
              :|  ||: | : |         |||||              |||         ||| |||::|
Db         44 KVVMKGQNVSMFCSHKNKSLQITYSLFRR----------KTHPGTQDGKGEPAIFNLSIT 93

Qy         89 --LKSSPDLLTYFCRASSTSGAH---------VDSARLQMHWELWSKPVSELRANFTLQD 137
                :| |    | |:|  || :           ||          : ||  :    | |
Db         94 EAHESGP----YKCKAQVTSCSKYSRDFSFTIVDPV---------TSPVLNIMVIQTETD 140

Qy        138 RGAGPRVEMICQASSGSPPITNSLIGKDGQVHLQQRPC----HRQPANFSFL---PSQTS 190
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```
                 |     : : | : :|| ||  :      : |:   |      |:|| |:     | :
Db        141 R----HITLHCLSVNGSLPINYTFF----ENHVAISPAISKYDREPAEFNLTKKNPGEEE 192

Qy        191 DWFWCQAANN----ANVQHSALTVVPPGGD 216
              : : |:| |     |   |  :|:   |||
Db        193 E-YRCEAKNRLPNYATYSH-PVTMPSTGGD 220
```

RESULT 24
AAY95966
ID AAY95966 standard; Protein; 343 AA.
XX
AC AAY95966;
XX
DT 05-DEC-2000 (first entry)
XX
DE Human TANGO 228.
XX
KW TANGO 228; human; spleen disorder; immunological disorder;
KW immunomodulator; antiinflammatory; cancer; tumour; metastasis;
KW antitumour; anticancer; antimetastatic; therapy; diagnosis.
XX
OS Homo sapiens.
XX
FH Key   Location/Qualifiers
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FT Protein   20..343
FT   /label= Mature_protein
FT Domain   1..227
FT   /note= "extracellular domain"
FT Domain   228..249
FT   /note= "transmembrane domain"
FT Domain   49..105
FT   /label= immunoglobulin domain
FT Domain   140..198
FT   /note= "immunoglobulin domain"
FT Domain   250..343
FT   /note= "cytoplasmic domain"
FT Modified-site   51..54
FT   /note= "Asn is N-glycosylated"
FT Modified-site   60..63
FT   /note= "Asn is N-glycosylated"
FT Modified-site   89..92
FT   /note= "Asn is N-glycosylated"
FT Modified-site   151..154
FT   /note= "Asn is N-glycosylated"
FT Modified-site   157..160
FT   /note= "Asn is N-glycosylated"
FT Modified-site   182..185
FT   /note= "Asn is N-glycosylated"
FT Modified-site   18..20
FT   /note= "protein kinase C phosphorylation site"
FT Modified-site   57..59
FT   /note= "protein kinase C phosphorylation site"
FT Modified-site   71..74
FT   /note= "cAMP- and cGMP-dependent protein kinase
FT   phosphorylation site"
FT Modified-site   139..141
FT   /note= "protein kinase C phosphorylation site"
FT Modified-site   184..186
FT   /note= "protein kinase C phosphorylation site"
FT Modified-site   254..256
FT   /note= "protein kinase C phosphorylation site"
FT Modified-site   331..333
FT   /note= "protein kinase C phosphorylation site"
FT Modified-site   91..94
FT   /note= "casein kinase phosphorylation site"
FT Modified-site   120..123
FT   /note= "casein kinase phosphorylation site"
FT Modified-site   137..140
FT   /note= "casein kinase phosphorylation site"
FT Modified-site   159..162

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FT   Modified-site   217..220
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FT   Modified-site   269..272
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FT   Modified-site   288..291
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FT   Modified-site   300..303
FT                   /note= "casein kinase phosphorylation site"
FT   Modified-site   186..192
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FT   Modified-site   306..313
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FT   Modified-site   49..54
FT                   /note= "N-myrisotylated"
FT   Modified-site   77..82
FT                   /note= "N-myrisotylated"
FT   Modified-site   274..279
FT                   /note= "N-myrisotylated"
FT   Modified-site   293..298
FT                   /note= "N-myrisotylated"
FT   Region          266..268
FT                   /note= "cell attachment site"
FT   Peptide         228..249
FT                   /note= "leucine zipper"
XX
PN   WO200050443-A2.
XX
PD   31-AUG-2000.
XX
PF   25-FEB-2000; 2000WO-US05035.
XX
PR   26-FEB-1999;   99US-0259387.
XX
PA   (MILL-) MILLENNIUM PHARM INC.
XX
PI   Fraser CC;
XX
DR   WPI; 2000-533178/48.
DR   N-PSDB; AAA50441.
XX
PT   Nucleic acids encoding TANGO 228, 240 and 243 pp. which have homology
PT   to the rat mast cell Ag-32, the Mycobacterium tuberculosis hypothetical
PT   protein Rv0712 and human phospholipase A2-activating protein -
XX
PS   Claim 8; Fig 2; 188pp; English.
XX
CC   The present sequence is that of human TANGO 228, a protein that
CC   includes 2 Ig domains and which has homology to rat MCA-32 (mast
CC   cell Ag-32), a cell surface antigen that is up-regulated in
CC   activated mast cells.  The sequence was deduced from that of a cDNA
CC   clone (see AAA50441)  isolated from a foetal spleen cDNA library.
CC   TANGO 228 proteins, nucleic acids and their modulators can be used
CC   to: modulate the proliferation, differentiation and/or function of
CC   cells that form the spleen, e.g. to treat (foetal) spleen-associated
CC   diseases such as splenic lymphoma and/or splenomegaly, and/or
CC   phagocytic disorders such as those inhibiting macrophage engulfment
CC   of bacteria and viruses in the bloodstream; to modulate mast cell
CC   function and thus to treat immunological disorders and diseases
CC   including allergic asthma and atopic dermatitis; to protect the body
CC   from antigenic invaders e.g. by modulating the activity of macrophage
CC   for treatment of anaphylactic shock or allergic dermatitis; to
CC   modulate type I immunological disorders, e.g. anaphylaxis or
CC   rhinitis, by modulating the interaction between antigens and mast
CC   cell receptors; and to treat tumour necrosis factor-related
CC   disorders (e.g. acute myocarditis, myocardial infarction, congestive
CC   heart failure); T cell disorders (e.g. dermatitis, fibrosis),
CC   differentiative and apoptotic disorders, and disorders related to
CC   angiogenesis (e.g. tumor formation, metastasis, cancer).  TANGO 228
CC   polypeptides can be obtained using recombinant DNA methods and
CC   expressed using gene therapy protocols.  They can also be used to
CC   raise antibodies (useful as diagnostics) and to screen for
CC   modulator compounds.
XX
SQ   Sequence   343 AA;

  Query Match             7.2%;  Score 101.5;  DB 21;  Length 343;
  Best Local Similarity   26.4%;  Pred. No. 0.24;
  Matches   55;  Conservative   27;  Mismatches   67;  Indels   59;  Gaps   13;

Qy         37 EVFPKGRWVLITCCAPQPPPPITYSL------CGTKNIKVAKKVVKTHEPASFNLNVT-- 88
              :|  ||: | : |        |||||        ||:: |          ||| |||::|
Db         44 KVVMKGQNVSMFCSHKNKSLQITYSLFRRKTHLGTQDGK--------GEPAIFNLSITEA 95

Qy         89 LKSSPDLLTYFCRASSTSGAH---------VDSARLQMHWELWSKPVSELRANFTLQDRG 139
                :| |     | |:|  || :           ||            : || :    |  ||
Db         96 HESGP----YKCKAQVTSCSKYSRDFSFTIVDPV---------TSPVLNIMVIQTETDR- 141

Qy        140 AGPRVEMICQASSGSPPITNSLIGKDGQVHLQQRPC----HRQPANFSFL---PSQTSDW 192
                : : | : :|| ||  :      : |:     |      |:|| |:    | :  :
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Qy        193 FWCQAANN----ANVQHSALTVVPPGGD 216
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Db        194 YRCEAKNRLPNYATYSH-PVTMPSTGGD 220


RESULT 25
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ID   ABB10224 standard; Protein; 362 AA.
XX
AC   ABB10224;
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DT   10-JAN-2002  (first entry)
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DE   Human cDNA SEQ ID NO: 532.
XX
KW   Human; gene therapy; neural disorder; immune system disorder;
KW   muscular disorder; reproductive disorder; gastrointestinal disorder;
KW   pulmonary disorder; cardiovascular disorder; renal disorder;
KW   proliferative disorder; inflammation.
XX
OS   Homo sapiens.
XX
PN   WO200154474-A2.
XX
PD   02-AUG-2001.
XX
PF   17-JAN-2001; 2001WO-US01349.
XX
PR   31-JAN-2000; 2000US-179065P.
PR   04-FEB-2000; 2000US-180628P.
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PR 08-NOV-2000; 2000US-246477P.
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PR 11-DEC-2000; 2000US-254097P.
PR 05-JAN-2001; 2001US-259678P.
XX
PA (HUMA-) HUMAN GENOME SCI INC.
XX
PI Rosen CA, Barash SC, Ruben SM;
XX
DR WPI; 2001-476161/51.
DR N-PSDB; ABA06446.
XX
PT Isolated nucleic acid molecule encoding an inflammation-associated
PT polypeptide is used in preventing, treating or ameliorating a medical
PT condition -
XX
PS Claim 11; SEQ ID NO: 532; 859pp + Sequence Listing; English.
XX
CC The present invention provides human cDNAs, proteins and related genomic
CC DNAs. These can be used in the treatment of neural, immune system,
CC muscular, reproductive, gastrointestinal, pulmonary, cardiovascular,
CC renal and proliferative disorders and inflammation. The present sequence
CC is a protein of the invention.
XX
SQ Sequence 362 AA;

Query Match 7.2%; Score 101.5; DB 22; Length 362;
Best Local Similarity 26.4%; Pred. No. 0.26;
Matches 55; Conservative 27; Mismatches 67; Indels 59; Gaps 13;

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Qy         37 EVFPKGRWVLITCCAPQPPPPITYSL------CGTKNIKVAKKVVKTHEPASFNLNVT-- 88
              :|  ||: | : |          |||||        ||:: |         ||| |||::|
Db         63 KVVMKGQNVSMFCSHKNKSLQITYSLFRRKTHLGTQDGK--------GEPAIFNLSITEA 114

Qy         89 LKSSPDLLTYFCRASSTSGAH---------VDSARLQMHWELWSKPVSELRANFTLQDRG 139
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Db        115 HESGP----YKCKAQVTSCSKYSRDFSFTIVDPV---------TSPVLNIMVIQTETDR- 160
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Qy        140 AGPRVEMICQASSGSPPITNSLIGKDGQVHLQQRPC----HRQPANFSFL---PSQTSDW 192
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Db        161 ---HITLHCLSVNGSLPINYTFF----ENHVAISPAISKYDREPAEFNLTKKNPGEEEE- 212

Qy        193 FWCQAANN----ANVQHSALTVVPPGGD 216
              : |:| |      |   |  :|:   |||
Db        213 YRCEAKNRLPNYATYSH-PVTMPSTGGD 239


RESULT 26
AAU18018
ID   AAU18018 standard; Protein; 362 AA.
XX
AC   AAU18018;
XX
DT   07-NOV-2001  (first entry)
XX
DE   Human immunoglobulin polypeptide SEQ ID No 163.
XX
KW   Immunoglobulin; signal transduction pathway protein; cancer;
KW   antisense therapy; gene therapy; neurological disorder; renal disorder;
KW   cardiovascular disorder; gastrointestinal disorder; pulmonary disorder;
KW   reproductive disorder; immune system disorder; proliferative disorder;
KW   muscular disorder.
XX
OS   Homo sapiens.
XX
PN   WO200155315-A2.
XX
PD   02-AUG-2001.
XX
PF   17-JAN-2001; 2001WO-US01326.
XX
PR   31-JAN-2000; 2000US-0179065.
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PR   02-MAR-2000; 2000US-0186350.
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PR   05-JAN-2001; 2001US-0259678.
XX
PA   (HUMA-) HUMAN GENOME SCI INC.
XX
PI   Rosen CA,  Barash SC,  Ruben SM;
XX
DR   WPI; 2001-457725/49.
DR   N-PSDB; AAS28806.
XX
PT   Isolated novel immunoglobulin polypeptide for monitoring the presence
PT   and progression of diseases and for diagnosis -
XX
PS   Claim 11; SEQ ID No 163; 551pp; English.
XX
CC   Sequences AAU17977-AAU18087 represent immunoglobulin polypeptides of the
CC   invention. The polypeptides and their associated polynucleotides can be
CC   used to diagnose a pathological condition or a susceptibility to a
CC   pathological condition in a subject by determining the presence or
CC   absence of a mutation in a DNA sequence or determining the presence or
CC   amount of expression of the protein. Alternatively the identification of
CC   a binding partner to a sequence allows determination of changes in
CC   protein activity. The sequences can be used as research tools for
CC   receptors or other signal transduction pathway proteins that interact
CC   with the polypeptides of the invention and can be used to treat, prevent
CC   or diagnose various types of disorders such as neurological disorders,
CC   cardiovascular disorders, gastrointestinal disorders, reproductive
CC   disorders, immune system disorders, renal disorders, muscular disorders,
CC   pulmonary disorders, proliferative disorders and cancer.
CC   Note: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence   362 AA;

  Query Match             7.2%;  Score 101.5;  DB 22;  Length 362;
  Best Local Similarity   26.4%;  Pred. No. 0.26;
  Matches   55;  Conservative   27;  Mismatches   67;  Indels   59;  Gaps   13;

Qy         37 EVFPKGRWVLITCCAPQPPPPITYSL------CGTKNIKVAKKVVKTHEPASFNLNVT-- 88
              :|  ||: | : |         |||||        ||:: |          ||| |||::|
Db         63 KVVMKGQNVSMFCSHKNKSLQITYSLFRRKTHLGTQDGK--------GEPAIFNLSITEA 114

Qy         89 LKSSPDLLTYFCRASSTSGAH---------VDSARLQMHWELWSKPVSELRANFTLQDRG 139
               :| |    | |:|  || :           ||           : ||  :    |  ||
Db        115 HESGP----YKCKAQVTSCSKYSRDFSFTIVDPV---------TSPVLNIMVIQTETDR- 160

Qy        140 AGPRVEMICQASSGSPPITNSLIGKDGQVHLQQRPC----HRQPANFSFL---PSQTSDW 192
                  : | : :|| ||  :      : |:   |      |:|| |:     | :  :
Db        161 ---HITLHCLSVNGSLPINYTFF----ENHVAISPAISKYDREPAEFNLTKKNPGEEEE- 212

Qy        193 FWCQAANN----ANVQHSALTVVPPGGD 216
                :|:| |     |  |  :|:   |||
Db        213 YRCEAKNRLPNYATYSH-PVTMPSTGGD 239


RESULT 27
ABP66811
ID   ABP66811 standard; Protein; 362 AA.
XX
AC   ABP66811;
XX
DT   09-DEC-2002  (first entry)
XX
DE   Human polypeptide SEQ ID NO 532.
XX
KW   Human; nootropic; neuroprotective; cytostatic; dermatological; virucide;
KW   immunosuppressive; antiinflammatory; anti-HIV; antibacterial; vulnerary;
KW   antiparkinsonian; antisickling; antianaemic; antiarthritic; cancer;
KW   antirheumatic; hepatotropic; cerebroprotective; antiinflammatory;
KW   antiallergic; antidiabetic; antiulcer; anticonvulsant; antifungal;
KW   antiparasitic; cardiant; immune disorder; cardiovascular disorder;
KW   neurological disease; infection; nephrotropic; gene therapy; vaccine.
XX
OS   Homo sapiens.
XX
PN   US2002090672-A1.
XX
PD   11-JUL-2002.
XX
PF   17-JAN-2001; 2001US-0764853.
XX
PR   31-JAN-2000; 2000US-179065P.
PR   04-FEB-2000; 2000US-180628P.
PR   28-JUN-2000; 2000US-214886P.
PR   07-JUL-2000; 2000US-216647P.
PR   07-JUL-2000; 2000US-216880P.
PR   11-JUL-2000; 2000US-217487P.
PR   11-JUL-2000; 2000US-217496P.
PR   14-JUL-2000; 2000US-218290P.
PR   26-JUL-2000; 2000US-220963P.
PR   26-JUL-2000; 2000US-220964P.
PR   14-AUG-2000; 2000US-224518P.
PR   14-AUG-2000; 2000US-224519P.
PR   14-AUG-2000; 2000US-225267P.
PR   14-AUG-2000; 2000US-225268P.
PR   14-AUG-2000; 2000US-225270P.
PR   14-AUG-2000; 2000US-225447P.
PR   14-AUG-2000; 2000US-225757P.
PR   14-AUG-2000; 2000US-225758P.
PR   22-AUG-2000; 2000US-226868P.
PR   30-AUG-2000; 2000US-228924P.
PR   01-SEP-2000; 2000US-229287P.
PR   01-SEP-2000; 2000US-229343P.
PR   01-SEP-2000; 2000US-229344P.
PR   01-SEP-2000; 2000US-229345P.
PR   05-SEP-2000; 2000US-229509P.
PR   05-SEP-2000; 2000US-229513P.
PR   08-SEP-2000; 2000US-231413P.
PR   21-SEP-2000; 2000US-234223P.
PR   21-SEP-2000; 2000US-234274P.
PR   25-SEP-2000; 2000US-234997P.
PR   27-SEP-2000; 2000US-235834P.
PR   29-SEP-2000; 2000US-236327P.
PR   29-SEP-2000; 2000US-236367P.
PR   29-SEP-2000; 2000US-236368P.
PR   29-SEP-2000; 2000US-236369P.
PR   29-SEP-2000; 2000US-236370P.
PR   02-OCT-2000; 2000US-236802P.
PR   02-OCT-2000; 2000US-237037P.
PR   02-OCT-2000; 2000US-237038P.
PR   02-OCT-2000; 2000US-237039P.
PR   02-OCT-2000; 2000US-237040P.
PR   13-OCT-2000; 2000US-239935P.
PR   20-OCT-2000; 2000US-240960P.
```

PR 20-OCT-2000; 2000US-241785P.
PR 20-OCT-2000; 2000US-241809P.
PR 01-NOV-2000; 2000US-244617P.
PR 17-NOV-2000; 2000US-249299P.
PR 08-DEC-2000; 2000US-251856P.
PR 08-DEC-2000; 2000US-251868P.
PR 08-DEC-2000; 2000US-251869P.
XX
PA (ROSE/) ROSEN C A.
PA (RUBE/) RUBEN S M.
PA (BARA/) BARASH S C.
XX
PI Rosen CA, Ruben SM, Barash SC;
XX
DR WPI; 2002-681727/73.
DR N-PSDB; ABV83783.
XX
PT Novel polypeptide useful for diagnosis, prognosis, prevention, and
PT treatment of immune, hyperproliferative, renal, respiratory,
PT cardiovascular, reproductive, endocrine, gastrointestinal and
PT neurological disorders -
XX
PS Claim 11; SEQ ID NO 532; 369pp + Sequence Listing; English.
XX
CC The invention relates to novel genes (ABV83682-ABV84101) and proteins
CC (ABP66710-ABP67129) useful for preventing, treating or ameliorating
CC medical conditions e.g. by protein or gene therapy. The genes are
CC isolated from a range of human tissues disclosed in the specification.
CC The nucleic acids, proteins, antibodies and (ant)agonists are useful
CC in the diagnosis, treatment and prevention of: (a) cancer, e.g. breast
CC and ovarian cancer and other cancers of the adrenal gland, bone, bone
CC marrow, breast, gastrointestinal tract, liver, lung, or urogenital;
CC (b) immune disorders e.g. Addison's disease, allergies, autoimmune
CC haemolytic anaemia, autoimmune thyroiditis, diabetes mellitus, Crohn's
CC disease, multiple sclerosis, rheumatoid arthritis and ulcerative
CC colitis; (c) cardiovascular disorders such as myocardial ischaemias;
CC (d) wound healing; (e) neurological diseases e.g. cerebral anoxia and
CC epilepsy; and (f) infectious diseases such as viral, bacterial, fungal
CC and parasitic infections.
CC Note: The sequence data for this patent did not form part of the
CC printed specification, but was obtained in electronic format directly
CC from WIPO at ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 362 AA;

Query Match 7.2%; Score 101.5; DB 23; Length 362;
Best Local Similarity 26.4%; Pred. No. 0.26;
Matches 55; Conservative 27; Mismatches 67; Indels 59; Gaps 13;

```
Qy         37 EVFPKGRWVLITCCAPQPPPPITYSL------CGTKNIKVAKKVVKTHEPASFNLNVT-- 88
              :|  ||: | : |      |||||       ||:: |         ||| |||::|
Db         63 KVVMKGQNVSMFCSHKNKSLQITYSLFRRKTHLGTQDGK--------GEPAIFNLSITEA 114

Qy         89 LKSSPDLLTYFCRASSTSGAH---------VDSARLQMHWELWSKPVSELRANFTLQDRG 139
               :| |    | |:|  || :          ||           : ||  :    |  ||
Db        115 HESGP----YKCKAQVTSCSKYSRDFSFTIVDPV---------TSPVLNIMVIQTETDR- 160

Qy        140 AGPRVEMICQASSGSPPITNSLIGKDGQVHLQQRPC----HRQPANFSFL---PSQTSDW 192
                : : | : :|| ||  :      : |:   |      |:|| |:     | :  :
Db        161 ---HITLHCLSVNGSLPINYTFF----ENHVAISPAISKYDREPAEFNLTKKNPGEEEE- 212

Qy        193 FWCQAANN----ANVQHSALTVVPPGGD 216
              : |:| |      |  :|:   |||
Db        213 YRCEAKNRLPNYATYSH-PVTMPSTGGD 239
```

RESULT 28
AAM25703
ID AAM25703 standard; Protein; 366 AA.
XX
AC AAM25703;
XX
DT 16-OCT-2001 (first entry)

XX
DE Human protein sequence SEQ ID NO:1218.
XX
KW Human; cancer; ulcer; HIV infection; human immunodeficiency virus;
KW antiinflammatory; antirheumatic; antiarthritic; immunosuppressive;
KW antibacterial; endocrine; cardiant; central nervous system; virucide;
KW anti-HIV; fungicide; antimutagen; cardiovascular; antianaemic; anaemia;
KW antiaggregant; haemostatic; vulnerary; antiulcer; osteopathic; eczema;
KW dermatological; antiallergic; antiasthmatic; antidiabetic; cytostatic;
KW neuroprotective; antidepressant; nootropic; antiparkinsonian; infection;
KW immunostimulant; gene therapy; antisense therapy; vaccine; inflammation;
KW antianaphylactic; rheumatoid arthritis; septic shock; pancreatitis;
KW cardiac dysfunction; neuropathology; cardiac anaphylaxis; autoimmunity;
KW genetic disease; haematopoietic disorder; platelet disorder; asthma;
KW thrombocytopaenia; osteoporosis; severe combined immunodeficiency;
KW allergic rhinitis; diabetes; multiple sclerosis; depression;
KW Alzheimer's disease; Parkinson's disease; neurodegenerative disorder;
KW neurological disorder.
XX
OS Homo sapiens.
XX
PN WO200153455-A2.
XX
PD 26-JUL-2001.
XX
PF 22-DEC-2000; 2000WO-US35017.
XX
PR 23-DEC-1999; 99US-0471275.
PR 21-JAN-2000; 2000US-0488725.
PR 25-APR-2000; 2000US-0552317.
XX
PA (HYSE-) HYSEQ INC.
XX
PI Tang YT, Liu C, Drmanac RT;
XX
DR WPI; 2001-457603/49.
DR N-PSDB; AAH99644.
XX
PT Isolated human polynucleotides encoding polypeptides, useful for the
PT treatment and diagnosis of e.g. cancer, ulcers and HIV infection -
XX
PS Claim 20; Page 252; 1217pp; English.
XX
CC AAH99166 to AAH99904 encode the human proteins given in AAM25225 to
CC AAM25963. The proteins can have activities based on the tissues and
CC cells they are expressed in, such as: antiinflammatory; antirheumatic;
CC antiarthritic; immunosuppressive; antibacterial; endocrine; cardiant;
CC central nervous system; virucide; anti-HIV; fungicide; antimutagen;
CC cardiovascular; antianaemic; antiaggregant; haemostatic; vulnerary;
CC antiulcer; osteopathic; dermatological; antiallergic; antiasthmatic;
CC antidiabetic; cytostatic; neuroprotective; antidepressant; nootropic;
CC antiparkinsonian; and immunostimulant. The proteins and polynucleotides
CC encoding them can be used in gene therapy, antisense therapy and vaccine
CC production, The proteins and polynucleotides are useful for screening for
CC agonists or antagonists of a protein and for the treatment and diagnosis
CC of disorders associated with the activity of a protein e.g. inflammation,
CC rheumatoid arthritis, septic shock, pancreatitis, cardiac dysfunction,
CC neuropathology, cardiac anaphylaxis, viral, bacterial, HIV and fungal
CC infections, autoimmunity, genetic diseases, haematopoietic disorders,
CC anaemia, platelet disorders, thrombocytopaenia, wounds, burns, ulcers,
CC osteoporosis, severe combined immunodeficiency, eczema, allergic
CC rhinitis, asthma, diabetes, cancer, multiple sclerosis, depression,
CC Alzheimer's disease, Parkinson's disease, neurodegenerative and
CC neurological disorders.
XX
SQ Sequence 366 AA;

Query Match 7.2%; Score 101.5; DB 22; Length 366;
Best Local Similarity 26.4%; Pred. No. 0.26;
Matches 55; Conservative 27; Mismatches 67; Indels 59; Gaps 13;

```
Qy         37 EVFPKGRWVLITCCAPQPPPPITYSL------CGTKNIKVAKKVVKTHEPASFNLNVT-- 88
              :|  ||: | : |      |||||       ||:: |         ||| |||::|
```

```
Db         67 KVVMKGQNVSMFCSHKNKSLQITYSLFRRKTHLGTQDGK--------GEPAIFNLSITEA 118

Qy         89 LKSSPDLLTYFCRASSTSGAH---------VDSARLQMHWELWSKPVSELRANFTLQDRG 139
              :| |     | |:|  || :           ||           : ||  :    |  ||
Db        119 HESGP----YKCKAQVTSCSKYSRDFSFTIVDPV---------TSPVLNIMVIQTETDR- 164

Qy        140 AGPRVEMICQASSGSPPITNSLIGKDGQVHLQQRPC----HRQPANFSFL---PSQTSDW 192
                : : | : :|| ||  :      : |:   |      |:|| |:     | :  :
Db        165 ---HITLHCLSVNGSLPINYTFF----ENHVAISPAISKYDREPAEFNLTKKNPGEEEE- 216

Qy        193 FWCQAANN----ANVQHSALTVVPPGGD 216
              : |:| |     |   |  :|:   |||
Db        217 YRCEAKNRLPNYATYSH-PVTMPSTGGD 243
```

RESULT 29
ABG96265
ID ABG96265 standard; Protein; 385 AA.
XX
AC ABG96265;
XX
DT 11-DEC-2002 (first entry)
XX
DE Human immunoglobulin superfamily protein IGSFP-3.
XX
KW Immunoglobulin superfamily protein; IGSFP; cell proliferative disorder;
KW arteriosclerosis; atherosclerosis; cirrhosis; hepatitis;
KW paroxysmal nocturnal haemoglobinuria; polycythaemia vera; psoriasis;
KW primary thrombocytopenia; cancer; leukaemia; lymphoma; sarcoma;
KW myeloma; autoimmune disorder; inflammatory disorder;
KW acquired immunodeficiency syndrome; AIDS; allergy; anaemia; asthma;
KW autoimmune thyroiditis; contact dermatitis; Crohn's disease;
KW diabetes mellitus; glomerulonephritis; Goodpasture's syndrome; gout;
KW Graves' disease; Hashimoto's thyroiditis; irritable bowel syndrome;
KW multiple sclerosis; osteoarthritis; osteoporosis; pancreatitis;
KW Reiter's syndrome; rheumatoid arthritis; Sjogren's syndrome; uveitis;
KW trauma; viral infection; bacterial infection; fungal infection;
KW parasitic infection; protozoal infection; helminthic infection;
KW gene therapy; human.
XX
OS Homo sapiens.
XX
PN WO200272794-A2.
XX
PD 19-SEP-2002.
XX
PF 12-MAR-2002; 2002WO-US09052.
XX
PR 12-MAR-2001; 2001US-275249P.
PR 31-AUG-2001; 2001US-316810P.
PR 21-SEP-2001; 2001US-323977P.
PR 26-OCT-2001; 2001US-348447P.
PR 02-NOV-2001; 2001US-343880P.
XX
PA (INCY-) INCYTE GENOMICS INC.
XX
PI Yue H, Xu Y, Thangavelu K, Warren BA, Tang YT, Duggan BM;
PI Tran UK, Baughn MR, Honchell CD, Burford N, Forsythe IJ, Yang J;
PI Mason PM;
XX
DR WPI; 2002-723340/78.
DR N-PSDB; ABS76358.
XX
PT New human immunoglobulin superfamily proteins and polynucleotides,
PT useful for diagnosing, treating or preventing disorders with aberrant
PT IGSFP expression, such as autoimmune, inflammatory or cell
PT proliferative diseases -
XX
PS Claim 1; Page 121-122; 145pp; English.
XX
CC The present invention relates to new immunoglobulin superfamily proteins
CC (IGSFP). The polypeptides, polynucleotides, agonists and antagonists are
CC useful for diagnosing, treating or preventing disorders associated with
CC aberrant expression of IGSFP, particularly cell proliferative, e.g.
CC arteriosclerosis, atherosclerosis, cirrhosis, hepatitis, paroxysmal
CC nocturnal haemoglobinuria, polycythaemia vera, psoriasis, primary
CC thrombocytopenia or cancers including leukaemia, lymphoma, sarcoma or
CC myeloma, and autoimmune or inflammatory disorders, e.g. acquired
CC immunodeficiency syndrome (AIDS), allergies, anaemia, asthma, autoimmune
CC thyroiditis, contact dermatitis, Crohn's disease, diabetes mellitus,
CC glomerulonephritis, Goodpasture's syndrome, gout, Graves' disease,
CC Hashimoto's thyroiditis, irritable bowel syndrome, multiple sclerosis,
CC osteoarthritis, osteoporosis, pancreatitis, Reiter's syndrome,
CC rheumatoid arthritis, Sjogren's syndrome, uveitis, trauma, or viral,
CC bacterial, fungal, parasitic, protozoal or helminthic infections. They
CC are also useful in the assessment of the effects of exogenous compounds
CC on the expression of nucleic acid and amino acid sequences of IGSFP.
CC The present amino acid sequence represents a human IGSFP protein of the
CC invention.
XX
SQ Sequence 385 AA;

Query Match 7.2%; Score 101.5; DB 23; Length 385;
Best Local Similarity 26.4%; Pred. No. 0.28;
Matches 55; Conservative 27; Mismatches 67; Indels 59; Gaps 13;

```
Qy         37 EVFPKGRWVLITCCAPQPPPPITYSL------CGTKNIKVAKKVVKTHEPASFNLNVT-- 88
              :|  ||: | : |         |||||        ||:: |          ||| |||::|
Db         86 KVVMKGQNVSMFCSHKNKSLQITYSLFRRKTHLGTQDGK--------GEPAIFNLSITEA 137

Qy         89 LKSSPDLLTYFCRASSTSGAH---------VDSARLQMHWELWSKPVSELRANFTLQDRG 139
              :| |     | |:|  || :           ||           : ||  :    |  ||
Db        138 HESGP----YKCKAQVTSCSKYSRDFSFTIVDPV---------TSPVLNIMVIQTETDR- 183

Qy        140 AGPRVEMICQASSGSPPITNSLIGKDGQVHLQQRPC----HRQPANFSFL---PSQTSDW 192
                : : | : :|| ||  :      : |:   |      |:|| |:     | :  :
Db        184 ---HITLHCLSVNGSLPINYTFF----ENHVAISPAISKYDREPAEFNLTKKNPGEEEE- 235

Qy        193 FWCQAANN----ANVQHSALTVVPPGGD 216
              : |:| |     |   |  :|:   |||
Db        236 YRCEAKNRLPNYATYSH-PVTMPSTGGD 262
```

RESULT 30
AAR94894
ID AAR94894 standard; peptide; 571 AA.
XX
AC AAR94894;
XX
DT 17-OCT-1996 (first entry)
XX
DE CD31 fragment (domains D1-D6).
XX
KW CD31; domain; antibody; detection; carcinoma; inflammation;
KW inhibition; treatment.
XX
OS Homo sapiens.
XX
PN GB2294321-A.
XX
PD 24-APR-1996.
XX
PF 19-OCT-1994; 94GB-0021118.
XX
PR 19-OCT-1994; 94GB-0021118.
XX
PA (IMCR) IMPERIAL CANCER RES FUND.
PA (YAMA-) YAMANOUCHI RES INST.
XX
PI Bird I, Buckley C, Fawcett J, Simmons D, Spragg J;
XX
DR WPI; 1996-202498/21.
XX
PT Methods of screening for inhibitors of CD31 interactions - and
PT mapping their sites of reaction with the CD31 protein
XX

PS Disclosure; Figure 16; 31pp; English.
XX
CC Screening of inhibitors of CD31 is achieved by incubating labelled
CC CD31 component with potential inhibitor, adding this mixture to CD31
CC component immobilised on a support, washing and detecting label.
CC Alternatively, potential inhibitor can be incubated with CD31
CC component immobilised on a support and labelled CD31 component can
CC be added followed by washing and detecting label. Failure to
CC detect label suggests that the compound being screened is not an
CC inhibitor of CD31. The method is used to identify antibodies that
CC can be used in the treatment of carcinomas and inflammation.
XX
SQ Sequence 571 AA;

Query Match 7.2%; Score 101; DB 17; Length 571;
Best Local Similarity 21.2%; Pred. No. 0.55;
Matches 60; Conservative 39; Mismatches 116; Indels 68; Gaps 11;

Qy 19 KAREEEITPVVSIAYKVLEVFPK----------GRWVLITCCAPQPPPPITYSLCGTK 66
Db 275 KVESSRISKVSSIVVNITELFSKPELESSFTHLDQGERLNLSCSIPGAPP---------A 325

Qy 67 NIKVAKKVVKTHEPASFNLNVTLKSSPDLLTYFCRASSTSGAHVDSARLQMHWELWSKPV 126
Db 326 NFTIQKEDTIVSQTQDF---TKIASKSDSGTYICTAGIDKVVKKSNTVQIVVCEMLSQPR 382

Qy 127 SELRANFTLQDRGAGPRVEMICQASSGSPPITNSLIGKDGQVHLQQRPCHRQPANFSFLP 186
Db 383 ISYDAQFEVI---KGQTIEVRCESISGTLPISYQLL-KTSKVLENSTKNSNDPAVFKLNP 438

Qy 187 SQTSDWFWCQAANNAN----------VQHSALT--VVPPGGDQKME----D 221
Db 439 TEDVE-YQCVADNCHSHAKMLSEVLRVKVIAPVDEVQISILSSKVVESGEDIVLQCAVNE 497

Qy 222 WQGPLESPIL----ALPLYRST----------RRLSEEEFGGF 250
Db 498 GSGPITYKFYREKEGKPFYQMTSNATQAFWTKQKASKEQEGEY 540

RESULT 31
AAB82314
ID AAB82314 standard; Protein; 592 AA.
XX
AC AAB82314;
XX
DT 23-JUL-2001 (first entry)
XX
DE Human immunoglobulin receptor isoform IRTA2b.
XX
KW Immunoglobulin superfamily receptor translocation associated; IRTA;
KW IRTA2b; human; immunoglobulin receptor; Fc receptor; melanoma;
KW lymphoma; myeloma; B cell malignancy; cancer; chromosome 1q21;
KW diagnosis; therapy.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT Peptide 1..15
FT /label= Signal_peptide
FT Protein 16..592
FT /label= Mature_protein
FT Modified-site 132..134
FT /note= "Asn is N-glycosylated"
FT Modified-site 383..385
FT /note= "Asn is N-glycosylated"
XX
PN WO200138490-A2.
XX
PD 31-MAY-2001.
XX
PF 28-NOV-2000; 2000WO-US32403.
XX
PR 29-NOV-1999; 99US-0168151.
XX
PA (UYCO) UNIV COLUMBIA NEW YORK.
XX
PI Dalla-Favera R;
XX
DR WPI; 2001-355921/37.
DR N-PSDB; AAF30951.
XX
PT New genes encoding immunoglobulin receptor, Immunoglobulin super
PT Receptor Translocation Associated proteins, used to treat B cell
PT malignancies including lymphomas and multiple myeloma -
XX
PS Claim 3; Fig 18B-1-18B-2; 72pp; English.
XX
CC The present sequence is that of the novel human immunoglobulin
CC receptor, immunoglobulin superfamily receptor translocation
CC associated protein isoform 2b (IRTA2b), an Fc receptor involved in
CC the pathogenesis of lymphoma and melanoma. Efforts to identify
CC genes involved in chromosomal aberrations affecting band 1q21 in
CC multiple myeloma and B cell lymphoma led to the discovery of IRTA2
CC and IRTA1 (see AAB82312) as founding members of a novel subfamily
CC of related receptors within the immunoreceptor family. The IRTA2
CC locus is transcribed into 3 major mRNA isoforms, IRTA2a, IRTA2b and
CC IRTA2c (see also AAB82314 and AAB82315). IRTA2b is a 592 amino
CC acid glycoprotein, which diverges from IRTA2a at residue 560,
CC extending for a further 32 residues, whose hydrophobicity suggest
CC docking to the plasma membrane via a GPI anchor. The IRTA genes
CC display a specific pattern of expression in mature B cells. IRTA2
CC is expressed in GC centrocytes and in perifollicular cells, which may
CC include immunoblasts and memory cells. The invention provides IRTA
CC nucleic acids and proteins, and antibodies directed to an epitope
CC of an IRTA protein. Methods are claimed for: detecting a B cell
CC malignancy comprising a 1q21 chromosomal rearrangement using a
CC nucleic acid molecule that specifically hybridises with a unique
CC sequence of human IRTA1-5; and treating a subject having a B
CC cell cancer by administering an anti-IRTA antibody or an antisense
CC oligonucleotide that specifically hybridises to IRTA mRNA so as
CC to prevent overexpression of IRTA protein and hence to arrest
CC cell growth or induce cell death of cancer cells expressing IRTA.
CC The B cell cancer is selected from B cell lymphoma, mantle cell
CC lymphoma, multiple myeloma, Burkitt's lymphoma, marginal zone
CC lymphoma, diffuse large cell lymphoma and follicular lymphoma. The
CC B cell lymphoma is selected from mucosa-associated-lymphoid tissue
CC B cell lymphoma or non-Hodgkin's lymphoma.
XX
SQ Sequence 592 AA;

Query Match 7.2%; Score 101; DB 22; Length 592;
Best Local Similarity 22.8%; Pred. No. 0.58;
Matches 55; Conservative 33; Mismatches 89; Indels 64; Gaps 10;

Qy 30 SIAYKVLEVFPKGRWVLITCCAPQP----PPPITYSLCGTK---------- 66
Db 264 TMPHSVISDSPRS-WIQVQIPASHPVLTLSPEKALNFEGTKVTLHCETQEDSLRTLYRFY 322

Qy 67 --NIKVAKKVVKTHEPASFNLNVTLKSSPDLLTYFCRASSTSGAHVDSARLQMHWELWSK 124
Db 323 HEGVPLRHKSVRCERGASISFSLTTENSGN---YYCTADNGLGAKPSKAVSLSVTVPVSH 379

Qy 125 PVSELRANFTLQDRGAGPRVEMICQASSGSPPITNSLIGKDGQVHLQQRPCHRQPAN--- 181
Db 380 PVLNLSSPEDLIFEGA--KVTLHCEAQRGSLPILY-------QFHHEDAALERRSANSAG 430

Qy 182 ---FSF-LPSQTSDWFWCQAANNANVQHS-----ALTVVPPGGDQKMEDWQGPLESPILA 232
Db 431 GVAISFSLTAEHSGNYYCTADNGFGPQRSKAVSLSITV----------PVSHPVLT 476

Qy 233 L 233
Db 477 L 477

RESULT 32

```
ABB84668
ID   ABB84668 standard; Protein; 727 AA.
XX
AC   ABB84668;
XX
DT   11-FEB-2003  (first entry)
XX
DE   Human SECP-20 protein from clone 8039739CD1 SEQ ID 20.
XX
KW   Secreted protein; SECP; human; antiarteriosclerotic; antiatherosclerotic;
KW   hepatotropic; cytostatic; anti-HIV; antiallergic; antiasthmatic; cancer;
KW   antianaemic; antidiabetic; antiinflammatory; neuroprotective; antiulcer;
KW   antirheumatic; antiarthritic; cardiant; hypotensive; gonadal dysgenesis;
KW   vasotropic; anticonvulsant; nootropic; immunosuppressive; pericarditis;
KW   antiparkinsonian; ophthalmological; cell proliferative disorder;
KW   arteriosclerosis; atherosclerosis; cirrhosis; hepatitis; angina pectoris;
KW   autoimmune disorder; AIDS; Crohn's disease; multiple sclerosis; epilepsy;
KW   ulcerative colitis; cardiovascular disorder; myocardial infarction;
KW   Raynaud's disease; myocarditis; neurological disorder; cataract;
KW   Huntington's disease; Alzheimer's disease; Creutzfeldt-Jakob disease;
KW   developmental disorder; Duchenne muscular dystrophy; antipsoriatic;
KW   Becker muscular dystrophy; Cushing's syndrome.
XX
OS   Homo sapiens.
XX
PN   WO200279441-A2.
XX
PD   10-OCT-2002.
XX
PF   29-MAR-2002; 2002WO-US09820.
XX
PR   30-MAR-2001; 2001US-280527P.
PR   06-APR-2001; 2001US-282112P.
PR   09-APR-2001; 2001US-282702P.
PR   13-APR-2001; 2001US-283855P.
PR   19-OCT-2001; 2001US-343718P.
PR   07-DEC-2001; 2001US-339236P.
PR   13-FEB-2002; 2002US-357002P.
XX
PA   (INCY-) INCYTE GENOMICS INC.
XX
PI   Baughn MR,  Burford N,  Ding L,  Duggan BM,  Elliott VS,  Forsythe IJ;
PI   Gandhi AR,  Gietzen KJ,  Griffin JA,  He A,  Honchell CD,  Ison CH;
PI   Lal PG,  Lee EA,  Lee S,  Lu DAM,  Mason PM,  Sanjanwala MM;
PI   Swarnakar A,  Ramkumar J,  Tang YT,  Thangavelu K,  Tran UK,  Walia NK;
PI   Warren BA,  Yao MG,  Xu Y,  Yue H;
XX
DR   WPI; 2003-058429/05.
DR   N-PSDB; ABS57564.
XX
PT   Novel human secreted protein useful for treating, preventing or
PT   diagnosing cancer, hepatitis, psoriasis, asthma, diabetes mellitus,
PT   anemia, epilepsy, cataract, Alzheimer's disease  -
XX
PS   Claim 75; Page 165-166; 188pp; English.
XX
CC   This invention describes novel secreted proteins (SECP) which have
CC   antiarteriosclerotic, antiatherosclerotic, hepatotropic, cytostatic,
CC   anti-HIV, antiallergic, antiasthmatic, antianaemic, antidiabetic,
CC   antiinflammatory, neuroprotective, antiulcer, antipsoriatic, vasotropic,
CC   antirheumatic, antiarthritic, cardiant, hypotensive, anticonvulsant,
CC   nootropic, immunosuppressive, antiparkinsonian and ophthalmological
CC   activity. The polynucleotides and polypeptides of the invention can be
CC   used for diagnosing, treating or preventing cell proliferative disorder
CC   e.g. arteriosclerosis, atherosclerosis, cirrhosis, hepatitis, cancer,
CC   autoimmune/inflammatory disorders e.g. acquired immunodeficiency syndrome
CC   (AIDS), allergies, asthma, anaemia, diabetes mellitus, Crohn's disease,
CC   multiple sclerosis, ulcerative colitis, psoriasis, rheumatoid arthritis,
CC   etc; cardiovascular disorder e.g. myocardial infarction, angina pectoris,
CC   hypertension, Raynaud's disease, myocarditis, pericarditis, etc;
CC   neurological disorders e.g. epilepsy, Huntington's disease, Parkinson's
CC   disease, Alzheimer's disease, Creutzfeldt-Jakob disease, etc; and
CC   developmental disorders e.g. Duchenne and Becker muscular dystrophy,
CC   cataract, gonadal dysgenesis, Cushing's syndrome, etc. The products of
CC   the invention can also be used for drug screening, proteome analysis,
CC   microarrays creating knock-in humanised animals or transgenic animals to
CC   model human diseases, in somatic or germline gene therapy, to generate a
CC   transcript image of a tissue or cell type, for detecting differences in
CC   the chromosomal location due to translocation, inversion, etc., among
CC   normal, carrier or affected individuals, and as hybridization probes for
CC   mapping naturally occurring genomic sequences. ABB84649-ABB84673
CC   represent secreted proteins encoded by the cDNA's shown in
CC   ABS57545-ABS57569, described in the disclosure of the invention.
XX
SQ   Sequence   727 AA;

  Query Match             7.1%;  Score 100;  DB 24;  Length 727;
  Best Local Similarity   24.9%;  Pred. No. 0.97;
  Matches   52;  Conservative   39;  Mismatches   88;  Indels   30;  Gaps   11;

Qy         25 ITPVVSIAYKVLEV-FPKGRWVL-----ITCCAPQPPPPITYSLCGTKNIKVAKKVVKTH 78
              :|  : ::: ||    |:   |:     : | : :  ||| |    ::: :     :
Db        367 VTVRIPVSHPVLTFRAPRAHTVVGDLLELHCESLRGSPPILYRFY-HEDVTLGNSSAPSG 425

Qy         79 EPASFNLNVTLKSSPDLLTYFCRASSTSGA-HVDSARLQMHWELWSKPVSELRANFTLQD 137
               |||||::| : | :   | | | :  || |     |::     : |||  |   ||:
Db        426 GGASFNLSLTAEHSGN---YSCDADNGLGAQHSHGVSLRV-----TVPVS--RPVLTLRA 475

Qy        138 RGA----GPRVEMICQASSGSPPITNSLIGKD---GQVHLQQRPCHRQPANFSF-LPSQT 189
              ||    |  :|: |::  || ||       :|   | :          |:|:  | ::
Db        476 PGAQAVVGDLLELHCESLRGSFPILYWFYHEDDTLGNISAHS----GGGASFNLSLTTEH 531

Qy        190 SDWFWCQAANNANVQHSALTVVPPGGDQK 218
              |  : |:| |     ||| :  :    |  :
Db        532 SGNYSCEADNGLGAQHSKVVTLNVTGTSR 560


RESULT 33
AAB82316
ID   AAB82316 standard; Protein; 734 AA.
XX
AC   AAB82316;
XX
DT   23-JUL-2001  (first entry)
XX
DE   Human immunoglobulin receptor IRTA3 protein.
XX
KW   Immunoglobulin superfamily receptor translocation associated;
KW   IRTA3; human; immunoglobulin receptor; Fc receptor; melanoma;
KW   lymphoma; myeloma; B cell malignancy; cancer; chromosome 1q21;
KW   diagnosis; therapy.
XX
OS   Homo sapiens.
XX
PN   WO200138490-A2.
XX
PD   31-MAY-2001.
XX
PF   28-NOV-2000; 2000WO-US32403.
XX
PR   29-NOV-1999;   99US-0168151.
XX
PA   (UYCO ) UNIV COLUMBIA NEW YORK.
XX
PI   Dalla-Favera R;
XX
DR   WPI; 2001-355921/37.
DR   N-PSDB; AAF30953.
XX
PT   New genes encoding immunoglobulin receptor, Immunoglobulin super
PT   Receptor Translocation Associated proteins, used to treat B cell
PT   malignancies including lymphomas and multiple myeloma -
XX
PS   Claim 4; Fig 18C-1-18C-2; 72pp; English.
XX
CC   The present sequence is that of the novel human immunoglobulin
```

CC receptor, immunoglobulin superfamily receptor translocation
CC associated protein 3 (IRTA3), an Fc receptor involved in the
CC pathogenesis of lymphoma and melanoma. Efforts to identify genes
CC involved in chromosomal aberrations affecting band 1q21 in multiple
CC myeloma and B cell lymphoma led to the discovery of IRTA1 and IRTA2
CC (see AAB82312-15) as founding members of a novel subfamily of related
CC receptors within the immunoreceptor family. 3 Additional proteins,
CC IRTA3, IRTA4 and IRTA5 (see AAB82316-18), were subsequently
CC identified, which are also members of this novel subfamily. The
CC IRTA genes display a specific pattern of expression in mature B
CC cells. IRTA3 is expressed in GC centrocytes and in perifollicular
CC cells, which may include lymphoblasts and memory cells. This is
CC analogous to IRTA2 expression. The invention provides IRTA nucleic
CC acids and proteins, and antibodies directed to an epitope of an IRTA
CC protein. Methods are claimed for: detecting a B cell malignancy
CC comprising a 1q21 chromosomal rearrangement using a nucleic acid
CC molecule that specifically hybridises with a unique sequence of
CC human IRTA1-5; and treating a subject having a B cell cancer by
CC administering an anti-IRTA antibody or an antisense oligonucleotide
CC that specifically hybridises to IRTA mRNA so as to prevent
CC overexpression of IRTA protein and hence to arrest cell growth or
CC induce cell death of cancer cells expressing IRTA. The B cell
CC cancer is selected from B cell lymphoma, mantle cell lymphoma,
CC multiple myeloma, Burkitt's lymphoma, marginal zone lymphoma,
CC diffuse large cell lymphoma and follicular lymphoma. The B cell
CC lymphoma is selected from mucosa-associated-lymphoid tissue B cell
CC lymphoma or non-Hodgkin's lymphoma.
XX
SQ Sequence 734 AA;

Query Match 7.1%; Score 100; DB 22; Length 734;
Best Local Similarity 24.9%; Pred. No. 0.99;
Matches 52; Conservative 39; Mismatches 88; Indels 30; Gaps 11;

```
Qy         25 ITPVVSIAYKVLEV-FPKGRWVL-----ITCCAPQPPPPITYSLCGTKNIKVAKKVVKTH 78
              :|  : ::: ||    |:   |:     : | : :  ||| |     ::: :      :
Db        374 VTVRIPVSHPVLTFRAPRAHTVVGDLLELHCESLRGSPPILYRFY-HEDVTLGNSSAPSG 432

Qy         79 EPASFNLNVTLKSSPDLLTYFCRASSTSGA-HVDSARLQMHWELWSKPVSELRANFTLQD 137
               |||||::| : | :   | | | :  || |     |::     : |||  |   ||:
Db        433 GGASFNLSLTAEHSGN---YSCDADNGLGAQHSHGVSLRV-----TVPVS--RPVLTLRA 482

Qy        138 RGA----GPRVEMICQASSGSPPITNSLIGKD---GQVHLQQRPCHRQPANFSF-LPSQT 189
              ||     |  :|: |::  || ||       :|   | :          |:|:  | ::
Db        483 PGAQAVVGDLLELHCESLRGSFPILYWFYHEDDTLGNISAHS----GGGASFNLSLTTEH 538

Qy        190 SDWFWCQAANNANVQHSALTVVPPGGDQK 218
              |  : |:| |    ||| :  :   |  :
Db        539 SGNYSCEADNGLGAQHSKVVTLNVTGTSR 567
```

RESULT 34
ABG74786
ID ABG74786 standard; Protein; 31267 AA.
XX
AC ABG74786;
XX
DT 05-JUN-2003 (first entry)
XX
DE Human RGS11 protein.
XX
KW RGS11; human; screening; cardiant; antianginal; gene therapy;
KW heart disorder; cardiac ischaemia; heart failure; angina.
XX
OS Homo sapiens.
XX
PN WO2002103355-A1.
XX
PD 27-DEC-2002.
XX
PF 17-JUN-2002; 2002WO-JP06019.
XX
PR 18-JUN-2001; 2001JP-0183038.
XX
PA (TAKE) TAKEDA CHEM IND LTD.
XX
PI Koyama N, Tanida S, Yamamoto K;
XX
DR WPI; 2003-167557/16.
DR N-PSDB; ABX13540.
XX
PT Screening compounds regulating RGS11 expression and activity for
PT prevention and treatment of heart disease -
XX
PS Claim 1; Page 59-261; 321pp; Japanese.
XX
CC This invention describes a novel method for screening compounds for their
CC ability to regulate the activity and expression of human RGS11 and its
CC partial peptides and salts, by observing the expression or activity of
CC RGS11 in the presence or absence of the test compound. The products of
CC the invention have cardiant and antianginal activity and can be used for
CC gene therapy. The methods and compositions are useful in the prevention,
CC treatment and diagnosis of heart disorders such as cardiac ischaemia,
CC heart failure and angina. This sequence represents the human RGS11
CC protein described in the disclosure of the invention.
XX
SQ Sequence 31267 AA;

Query Match 7.1%; Score 99.5; DB 24; Length 31267;
Best Local Similarity 22.4%; Pred. No. 2.3e+02;
Matches 49; Conservative 31; Mismatches 72; Indels 67; Gaps 8;

```
Qy         24 EITPVVSIAYKVLEVFPKGRWVLITCCAPQPPPPITYSLCGTKNIKVAKKVVKTHEPASF 83
              |: ||  : |  :|         : |     ||      |   : |: :||   |   : |
Db       6398 ELKPVEVVKYSDVE---------LECEVTGTPPFEVTWLKNNREIRSSKKYTLTDRVSVF 6448

Qy         84 NLNVTLKSSPDLLTYFCRASSTSGAHVDSARLQMHWELWSKPVS----------ELRANF 133
              ||::|     |   | |  |:  |:   | |: :       :| |           |:::
Db       6449 NLHITKCDPSDTGEYQCIVSNEGGSCSCSTRVAL-----KEPPSFIKKIENTTTVLKSSA 6503

Qy        134 TLQDRGAGPRVEMICQASSGSPPIT------NSLIGKDGQVHLQQRPCHRQPANFSFLPS 187
              | |   |              |||||:      : :: :|  |::           ||: |
Db       6504 TFQSTVA-----------GSPPISITWLKDDQILDEDDNVYI-----------SFVDS 6539

Qy        188 QT-----------SDWFWCQAANNANVQ--HSALTVVPP 213
                          |  : ||| | : |:  :: | |  |
Db       6540 VATLQIRSVDNGHSGRYTCQAKNESGVERCYAFLLVQEP 6578
```

RESULT 35
ABP69283
ID ABP69283 standard; Protein; 222 AA.
XX
AC ABP69283;
XX
DT 20-JAN-2003 (first entry)
XX
DE Human polypeptide SEQ ID NO 1330.
XX
KW Human; genome mapping; gene therapy; food supplement; virus; fungus;
KW cell-proliferative disorder; neurodegenerative disease; bacterial;
KW Parkinson's disease; Alzheimer's disease; autoimmune disease;
KW multiple sclerosis; diabetes; genetic disorder; wound; burn; infection;
KW arthritis; cytostatic; immunomodulator; nootropic; neuroprotective;
KW antiparkinsonian; antidiabetic; immunosuppressive; dermatological;
KW haemostatic; vulnerary; fungicide; antibacterial; virucide; protozoacide;
KW antiarthritic.
XX
OS Homo sapiens.
XX
PN WO200270539-A2.
XX
PD 12-SEP-2002.
XX
PF 05-MAR-2002; 2002WO-US05095.
XX

```
PR   05-MAR-2001; 2001US-0799451.
XX
PA   (HYSE-) HYSEQ INC.
XX
PI   Tang YT, Zhou P, Goodrich RW, Asundi V, Zhang J, Zhao QA, Ren F;
PI   Xue AJ, Yang Y, Ma Y, Yamazaki V, Chen R, Wang Z, Ghosh M;
PI   Wehrman T, Wang J, Wang D, Drmanac RT;
XX
DR   WPI; 2002-759812/82.
DR   N-PSDB; ABZ11500.
XX
PT   New polynucleotides comprising sequences assembled from expressed
PT   sequence tags (ESTs), useful for treating cell-proliferative,
PT   neurodegenerative, autoimmune, genetic, myeloid or lymphoid, or
PT   platelet or coagulation disorders -
XX
PS   Claim 9; SEQ ID NO 1330; 1012pp + Sequence Listing; English.
XX
CC   The invention relates to an isolated polynucleotide (I) comprising a
CC   nucleotide sequence selected from any of 948 sequences
CC   (ABZ11119-ABZ12066) or their mature protein coding portion, active domain
CC   coding protein or complementary sequences. The polynucleotides are useful
CC   for identifying expressed genes or for physical mapping of human genome.
CC   The encoded polypeptides (ABP68902-ABP69849) are useful as molecular
CC   weight markers, as a food supplement, for generating antibodies, in
CC   medical imaging, screening and diagnostic assays and for treating
CC   cell-proliferative disorders (cancer), neurodegenerative diseases
CC   (Parkinson's or Alzheimer's disease), autoimmune diseases (multiple
CC   sclerosis, diabetes, lupus) genetic disorders, myeloid or lymphoid
CC   disorders, platelet or coagulation disorders, wound, burns, incision,
CC   ulcers, liver or lung fibrosis, infections (bacterial, viral, fungal,
CC   parasitic), arthritis, etc.
CC   Note: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence   222 AA;

  Query Match             7.0%;  Score 98.5;  DB 23;  Length 222;
  Best Local Similarity   23.9%;  Pred. No. 0.25;
  Matches   50;  Conservative   28;  Mismatches   86;  Indels   45;  Gaps    8;

Qy         30 SIAYKVLEVFPKGRWVLITCCAPQP----PPPITYSLCGTK------------------- 66
              :: | ||:   |:  |: :   |  |      |    :  |||
Db         15 TMPYSVISDSPRS-WIQVQIPASHPVLTLSPEKALNFEGTKVTLHCETQEDSLRTLYRFY 73

Qy         67 --NIKVAKKVVKTHEPASFNLNVTLKSSPDLLTYFCRASSTSGAHVDSARLQMHWELWSK 124
                 : :  | ||:     || : ::| ::| :   |:| | :  ||    |         |
Db         74 HEGVPLRHKSVRCERGASISFSLTTENSGN---YYCTADNGLGAKPSKAVSLSVTVPVSH 130

Qy        125 PVSELRANFTLQDRGAGPRVEMICQAASGSPPITNSLIGKDGQVHLQQRPCHRQPAN--- 181
              ||  | :   |   ||  :| : |:|  || ||          | | :     |: ||
Db        131 PVLNLSSPEDLIFEGA--KVTLHCEAQRGSLPILY-------QFHHEDAALERRSANSAG 181

Qy        182 ---FSF-LPSQTSDWFWCQAANNANVQHS 206
                 || | :: |  ::| | |     | |
Db        182 GVAISFSLTAEHSGNYYCTADNGFGPQRS 210


RESULT 36
AAR13251
ID   AAR13251 standard; Protein; 738 AA.
XX
AC   AAR13251;
XX
DT   25-MAR-2003  (updated)
DT   10-OCT-1991  (first entry)
XX
DE   PECAM-1.
XX
KW   Platelet and endothelial cell adhesion molecule; antibodies;
KW   mutein; leukemia; cancer; variant.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Peptide         1..27
FT                   /label= sig_peptide
FT   Protein         28..738
FT                   /label= mat_protein
FT   Domain          602..620
FT                   /label= transmembrane_domain
FT   Modified-site   52
FT                   /label= glycosylation_site
FT   Modified-site   84
FT                   /label= glycosylation_site
FT   Modified-site   151
FT                   /label= glycosylation_site
FT   Modified-site   301
FT                   /label= glycosylation_site
FT   Modified-site   320
FT                   /label= glycosylation_site
FT   Modified-site   344
FT                   /label= glycosylation_site
FT   Modified-site   356
FT                   /label= glycosylation_site
FT   Modified-site   453
FT                   /label= glycosylation_site
FT   Modified-site   551
FT                   /label= glycosylation_site
FT   Modified-site   713
FT                   /label= phosporylation_site
XX
PN   WO9110683-A.
XX
PD   25-JUL-1991.
XX
PF   27-DEC-1990;   90WO-US07418.
XX
PR   19-JAN-1990;   90US-0466140.
XX
PA   (BLOO-) BLOOD CENT SE WISCO.
PA   (NEWM/) NEWMAN P J.
XX
PI   Newman PJ;
XX
DR   WPI; 1991-237987/32.
DR   P-PSDB; AAR13251.
XX
PT   Platelet and endothelial cell adhesion molecule - the molecule or
PT   its antibodies, are useful for preventing metastatic disease
XX
PS   Disclosure; Fig 1; 42pp; English.
XX
CC   Cysteine residues, spaced approx. 50 amino acids apart throughout
CC   the entire external domain of PECAM-1, are thought to participate in
CC   disulfide-bond formation within individual immunoglobulin homology
CC   units.
CC   PECAM-1 and variants can be used in modulating angiogenic processes
CC   which depend on neutrophil chemotaxis and/or formation of junctions
CC   between endothelial cells, e.g. in tumour development. PECAM-1,
CC   variants and antibodies to them can be used in the prevention of
CC   metastatic disease. The antibodies can also be used to produce
CC   anti-idiotypic antibodies which can be used to sequester anti-PECAM
CC   antibodies in an individual, thereby to treat or prevent pathological
CC   conditions which may be associated with an immune response whereby
CC   PECAM-1 is recognised as foreing by the immune system of the
CC   individual.
CC   The variant pref. comprises the N-terminal sequence QENSF and is
CC   574 amino acids long.
CC   (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ   Sequence   738 AA;

  Query Match             7.0%;  Score 98;  DB 12;  Length 738;
  Best Local Similarity   21.2%;  Pred. No. 1.6;
```

```
  Matches   60;  Conservative   39;  Mismatches  116;  Indels   68;  Gaps   11;

Qy         19 KAREEEITPVVSIAYKVLEVFPK------------GRWVLITCCAPQPPPPITYSLCGTK 66
              |      |: | ||   : |:| |             |  : ::|  |  ||
Db        305 KVESSRISKVSSIVVNITELFSKPELESSFTHLDQGERLNLSCSIPGAPP---------A 355

Qy         67 NIKVAKKVVKTHEPASFNLNVTLKSSPDLLTYFCRASSTSGAHVDSARLQMHWELWSKPV 126
              |  : |:     :   |     : |  |  || | |          :    :  |: |:|
Db        356 NFTIQKEDTIVSQTQDF---TKIASKSDSGTYICTAGIDKVVKKSNTVQIVVCEMLSQPR 412

Qy        127 SELRANFTLQDRGAGPRVEMICQASSGSPPITNSLIGKDGQVHLQQRPCHRQPANFSFLP 186
                | | :     |  :|: |:: ||: ||:  |: |  :|          || |   |
Db        413 ISYDAQFEVI---KGQTIEVRCESISGTLPISYQLL-KTSKVLENSTKNSNDPAVFKDNP 468

Qy        187 SQTSDWFWCQAANNAN------------------VQHSALT--VVPPGGDQKME----D 221
              ::  : : | | |  :                  || | |:  ||  | |  ::    :
Db        469 TEDVE-YQCVADNCHSHAKMLSEVLRVKVIAPVDEVQISILSSKVVESGEDIVLQCAVNE 527

Qy        222 WQGPLESPIL----ALPLYRST----------RRLSEEEFGGF 250
              ||:          | |: |           :: |:|: | :
Db        528 GSGPITYKFYREKEGKPFYQMTSNATQAFWTKQKASKEQEGEY 570


RESULT 37
AAW14802
ID   AAW14802 standard; Protein; 738 AA.
XX
AC   AAW14802;
XX
DT   17-OCT-1997  (first entry)
XX
DE   PECAM-1.
XX
KW   PECAM-1; platelet/endothelial cell adhesion molecule-1; CD31;
KW   inhibitor; allergy; adult respiratory distress syndrome;
KW   Crohn's disease; septic shock; traumatic shock;
KW   multi-organ failure; autoimmune disease; asthma;
KW   inflammatory bowel disease; psoriasis; rheumatoid arthritis;
KW   reperfusion injury; stroke; cancer; multiple sclerosis;
KW   atherosclerosis; leukaemia; organ transplant; therapy.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Peptide         1..27
FT                   /label= Sig_peptide
FT   Protein         28..738
FT                   /label= Mat_protein
FT   Domain          28..601
FT                   /label= Extracellular
FT   Domain          602..620
FT                   /label= Transmembrane
FT   Domain          621..738
FT                   /label= Cytoplasmic
FT   Region          28..144
FT                   /label= Ig-like
FT   Region          145..248
FT                   /label= Ig-like
FT   Region          249..339
FT                   /label= Ig-like
FT   Region          340..423
FT                   /label= Ig-like
FT   Region          424..515
FT                   /label= Ig-like
FT   Region          516..601
FT                   /label= Ig-like
XX
PN   WO9710839-A1.
XX
PD   27-MAR-1997.
XX
PF   18-SEP-1996;   96WO-US14940.
XX
PR   19-SEP-1995;   95US-0003996.
PR   19-SEP-1995;   95US-0003941.
PR   19-SEP-1995;   95US-0003951.
PR   19-SEP-1995;   95US-0003953.
PR   19-SEP-1995;   95US-0003968.
PR   19-SEP-1995;   95US-0003985.
XX
PA   (TEXA-) TEXAS BIOTECHNOLOGY CORP.
XX
PI   Beck P,  Bjercke RJ,  Kint PN,  Ren K,  Revelle BM;
PI   Sherwood S;
XX
DR   WPI; 1997-202615/18.
XX
PT   New synthetic peptide(s) based on PECAM-1 sequences - used for
PT   inhibiting the binding of PECAM-1 to itself, for treating e.g.
PT   asthma, autoimmune diseases, shock, strokes or cancer
XX
PS   Claim 1; Page 31-34; 87pp; English.
XX
CC   Human PECAM-1 (AAW14802), or platelet/endothelial cell adhesion
CC   molecule-1 or CD31, is a glycoprotein that is constitutively
CC   expressed on the surface of endothelial cells, platelets and most
CC   leukocytes.  It recognises and binds to other PECAM-1 molecules
CC   present on the surface of adjacent cells.  Novel, synthetic linear
CC   and cyclic peptides (AAW28354-W28457) of 4-13 amino acids are based
CC   on the C2-type Ig domain of PECAM-1.  They inhibit the binding of
CC   PECAM-1 to itself and can be used for treating allergy, adult
CC   respiratory distress syndrome, Crohn's disease, septic shock,
CC   traumatic shock, multi-organ failure, autoimmune disease, asthma,
CC   inflammatory bowel disease, psoriasis, rheumatoid arthritis,
CC   reperfusion injury, stroke, cancer, organ transplants, multiple
CC   sclerosis, atherosclerosis and leukaemia.
XX
SQ   Sequence   738 AA;

  Query Match             7.0%;  Score 98;  DB 18;  Length 738;
  Best Local Similarity   21.2%;  Pred. No. 1.6;
  Matches   60;  Conservative   39;  Mismatches  116;  Indels   68;  Gaps   11;

Qy         19 KAREEEITPVVSIAYKVLEVFPK------------GRWVLITCCAPQPPPPITYSLCGTK 66
              |      |: | ||   : |:| |             |  : ::|  |  ||
Db        305 KVESSRISKVSSIVVNITELFSKPELESSFTHLDQGERLNLSCSIPGAPP---------A 355

Qy         67 NIKVAKKVVKTHEPASFNLNVTLKSSPDLLTYFCRASSTSGAHVDSARLQMHWELWSKPV 126
              |  : |:     :   |     : |  |  || | |          :    :  |: |:|
Db        356 NFTIQKEDTIVSQTQDF---TKIASKSDSGTYICTAGIDKVVKKSNTVQIVVCEMLSQPR 412

Qy        127 SELRANFTLQDRGAGPRVEMICQASSGSPPITNSLIGKDGQVHLQQRPCHRQPANFSFLP 186
                | | :     |  :|: |:: ||: ||:  |: |  :|          || |   |
Db        413 ISYDAQFEVI---KGQTIEVRCESISGTLPISYQLL-KTSKVLENSTKNSNDPAVFKDNP 468

Qy        187 SQTSDWFWCQAANNAN------------------VQHSALT--VVPPGGDQKME----D 221
              ::  : : | | |  :                  || | |:  ||  | |  ::    :
Db        469 TEDVE-YQCVADNCHSHAKMLSEVLRVKVIAPVDEVQISILSSKVVESGEDIVLQCAVNE 527

Qy        222 WQGPLESPIL----ALPLYRST----------RRLSEEEFGGF 250
              ||:          | |: |           :: |:|: | :
Db        528 GSGPITYKFYREKEGKPFYQMTSNATQAFWTKQKASKEQEGEY 570


RESULT 38
AAB07652
ID   AAB07652 standard; Protein; 738 AA.
XX
AC   AAB07652;
XX
DT   07-NOV-2000  (first entry)
XX
DE   A platelet-endothelial cell adhesion molecule-1.
XX
KW   Human; platelet-endothelial cell adhesion molecule-1; PECAM-1;
KW   angiogenesis; inflammation; arterial occlusion; tumour development;
```

```
KW   leukocyte transmigration; arthritis; bee sting; spider bite; sepsis;
KW   anaphylactic shock; atherosclerosis; vascular trauma.
XX
OS   Homo sapiens.
XX
PN   US6087331-A.
XX
PD   11-JUL-2000.
XX
PF   07-JUN-1995;   95US-0478208.
XX
PR   19-JAN-1990;   90US-0466140.
PR   17-NOV-1992;   92US-0977567.
PR   16-NOV-1994;   94US-0341300.
XX
PA   (BLOO-) BLOOD CENT SOUTHEASTERN WISCONSIN.
XX
PI   Kirshbaum N,  Gumina RJ,  Newman PJ;
XX
DR   WPI; 2000-498203/44.
DR   N-PSDB; AAA59036.
XX
PT   Therapeutic methods useful for modulating angiogenic processes,
PT   relieving inflammation, or inhibiting arterial occlusions by
PT   administering a soluble form of the platelet-endothelial cell adhesion
PT   molecule-1  -
XX
PS   Claim 1; Column 37-42; 22pp; English.
XX
CC   The present sequence represents a human platelet-endothelial cell
CC   adhesion molecule-1 (PECAM-1) polypeptide. A soluble form of
CC   PECAM-1 is used for modulating angiogenic processes, relieving
CC   inflammation, and inhibiting arterial occlusions. The method
CC   is useful for modulating angiogenic processes that are associated
CC   with tumour development, relieving inflammation due to leukocyte
CC   transmigration (e.g. arthritis, bee sting, spider bite, sepsis or
CC   anaphylactic shock), or inhibiting arterial occlusions that are
CC   associated with atherosclerosis or vascular trauma. PECAM-1 isoforms
CC   are useful for making antibodies, e.g. monoclonal antibodies, for
CC   various diagnostic and therapeutic uses.
XX
SQ   Sequence   738 AA;

  Query Match             7.0%;  Score 98;  DB 21;  Length 738;
  Best Local Similarity   21.2%;  Pred. No. 1.6;
  Matches   60;  Conservative   39;  Mismatches  116;  Indels   68;  Gaps   11;

Qy         19 KAREEEITPVVSIAYKVLEVFPK-----------GRWVLITCCAPQPPPPITYSLCGTK 66
Db        305 KVESSRISKVSSIVVNITELFSKPELESSFTHLDQGERLNLSCSIPGAPP---------A 355

Qy         67 NIKVAKKVVKTHEPASFNLNVTLKSSPDLLTYFCRASSTSGAHVDSARLQMHWELWSKPV 126
Db        356 NFTIQKEDTIVSQTQDF---TKIASKSDSGTYICTAGIDKVVKKSNTVQIVVCEMLSQPR 412

Qy        127 SELRANFTLQDRGAGPRVEMICQASSGSPPITNSLIGKDGQVHLQQRPCHRQPANFSFLP 186
Db        413 ISYDAQFEVI---KGQTIEVRCESISGTLPISYQLL-KTSKVLENSTKNSNDPAVFKDNP 468

Qy        187 SQTSDWFWCQAANNAN------------------VQHSALT--VVPPGGDQKME----D 221
Db        469 TEDVE-YQCVADNCHSHAKMLSEVLRVKVIAPVDEVQISILSSKVVESGEDIVLQCAVNE 527

Qy        222 WQGPLESPIL----ALPLYRST----------RRLSEEEFGGF 250
Db        528 GSGPITYKFYREKEGKPFYQMTSNATQAFWTKQKASKEQEGEY 570


RESULT 39
AAB65866
ID   AAB65866 standard; Protein; 738 AA.
XX
AC   AAB65866;
XX
DT   28-MAR-2001  (first entry)
XX
DE   Human PECAM-1 protein SEQ ID NO: 73.
XX
KW   Human; mouse; secreted protein; TANGO253; TANGO 257; TANGO 281;
KW   INTERCEPT 258; coronary disorder; olfactory disorder;
KW   neurological disorder; pulmonary disorder; immunological disorder;
KW   developmental disorder; kidney disorder.
XX
OS   Homo sapiens.
XX
PN   WO200078808-A1.
XX
PD   28-DEC-2000.
XX
PF   19-JUN-2000; 2000WO-US16883.
XX
PR   18-JUN-1999;   99US-0336536.
XX
PA   (MILL-) MILLENNIUM PHARM INC.
XX
PI   Leiby KR,  McKay C,  Bossone S;
XX
DR   WPI; 2001-050109/06.
XX
PT   New nucleic acids for treating diseases and disorders, e.g.
PT   atherosclerosis, infection, autoimmune diseases, obesity, ear
PT   disorders, brain disorders, tumors, diabetes, arthritis, multiple
PT   sclerosis and asthma -
XX
PS   Disclosure; Page 255-258; 332pp; English.
XX
CC   The present invention provides the protein and coding sequences of the
CC   human and murine secreted or transmembrane proteins TANGO 253, TANGO 257,
CC   TANGO 281 and INTERCEPT 258. These are useful in the treatment of
CC   coronary, pulmonary, olfactory, immunological, neurological,
CC   developmental and kidney disorders.
XX
SQ   Sequence   738 AA;

  Query Match             7.0%;  Score 98;  DB 22;  Length 738;
  Best Local Similarity   21.2%;  Pred. No. 1.6;
  Matches   60;  Conservative   39;  Mismatches  116;  Indels   68;  Gaps   11;

Qy         19 KAREEEITPVVSIAYKVLEVFPK-----------GRWVLITCCAPQPPPPITYSLCGTK 66
Db        305 KVESSRISKVSSIVVNITELFSKPELESSFTHLDQGERLNLSCSIPGAPP---------A 355

Qy         67 NIKVAKKVVKTHEPASFNLNVTLKSSPDLLTYFCRASSTSGAHVDSARLQMHWELWSKPV 126
Db        356 NFTIQKEDTIVSQTQDF---TKIASKSDSGTYICTAGIDKVVKKSNTVQIVVCEMLSQPR 412

Qy        127 SELRANFTLQDRGAGPRVEMICQASSGSPPITNSLIGKDGQVHLQQRPCHRQPANFSFLP 186
Db        413 ISYDAQFEVI---KGQTIEVRCESISGTLPISYQLL-KTSKVLENSTKNSNDPAVFKDNP 468

Qy        187 SQTSDWFWCQAANNAN------------------VQHSALT--VVPPGGDQKME----D 221
Db        469 TEDVE-YQCVADNCHSHAKMLSEVLRVKVIAPVDEVQISILSSKVVESGEDIVLQCAVNE 527

Qy        222 WQGPLESPIL----ALPLYRST----------RRLSEEEFGGF 250
Db        528 GSGPITYKFYREKEGKPFYQMTSNATQAFWTKQKASKEQEGEY 570


RESULT 40
AAR94893
ID   AAR94893 standard; peptide; 474 AA.
XX
AC   AAR94893;
XX
DT   17-OCT-1996  (first entry)
```

XX
DE CD31 fragment (domains D1-D5).
XX
KW CD31; domain; antibody; detection; carcinoma; inflammation;
KW inhibition; treatment.
XX
OS Homo sapiens.
XX
PN GB2294321-A.
XX
PD 24-APR-1996.
XX
PF 19-OCT-1994; 94GB-0021118.
XX
PR 19-OCT-1994; 94GB-0021118.
XX
PA (IMCR) IMPERIAL CANCER RES FUND.
PA (YAMA-) YAMANOUCHI RES INST.
XX
PI Bird I, Buckley C, Fawcett J, Simmons D, Spragg J;
XX
DR WPI; 1996-202498/21.
XX
PT Methods of screening for inhibitors of CD31 interactions - and
PT mapping their sites of reaction with the CD31 protein
XX
PS Disclosure; Figure 16; 31pp; English.
XX
CC Screening of inhibitors of CD31 is achieved by incubating labelled
CC CD31 component with potential inhibitor, adding this mixture to CD31
CC component immobilised on a support, washing and detecting label.
CC Alternatively, potential inhibitor can be incubated with CD31
CC component immobilised on a support and labelled CD31 component can
CC be added followed by washing and detecting label. Failure to
CC detect label suggests that the compound being screened is not an
CC inhibitor of CD31. The method is used to identify antibodies that
CC can be used in the treatment of carcinomas and inflammation.
XX
SQ Sequence 474 AA;

Query Match 6.9%; Score 97.5; DB 17; Length 474;
Best Local Similarity 22.8%; Pred. No. 0.94;
Matches 44; Conservative 27; Mismatches 93; Indels 29; Gaps 6;

```
Qy          19 KAREEEITPVVSIAYKVLEVFPK-----------GRWVLITCCAPQPPPPITYSLCGTK 66
               |      |: | ||   : |:| |           |  : ::|  |  ||
Db         275 KVESSRISKVSSIVVNITELFSKPELESSFTHLDQGERLNLSCSIPGAPP---------A 325

Qy          67 NIKVAKKVVKTHEPASFNLNVTLKSSPDLLTYFCRASSTSGAHVDSARLQMHWELWSKPV 126
               |  : |:     :   |     : |  |  || | |          :    :  |: |:|
Db         326 NFTIQKEDTIVSQTQDF---TKIASKSDSGTYICTAGIDKVVKKSNTVQIVVCEMLSQPR 382

Qy         127 SELRANFTLQDRGAGPRVEMICQASSGSPPITNSLIGKDGQVHLQQRPCHRQPANFSFLP 186
                 | |  :    |  :|: |:: ||: ||:  |: |  :|          || |   |
Db         383 ISYDAQFEVI---KGQTIEVRCESISGTLPISYQLL-KTSKVLENSTKNSNDPAVFKDNP 438

Qy         187 SQTSDWFWCQAAN 199
               ::  : : | | |
Db         439 TEDVE-YQCVADN 450
```

RESULT 41
ABG10463
ID ABG10463 standard; Protein; 506 AA.
XX
AC ABG10463;
XX
DT 13-FEB-2002 (first entry)
XX
DE Novel human diagnostic protein #10454.
XX
KW Human; chromosome mapping; gene mapping; gene therapy; forensic;
KW food supplement; medical imaging; diagnostic; genetic disorder.
XX
OS Homo sapiens.
XX
PN WO200175067-A2.
XX
PD 11-OCT-2001.
XX
PF 30-MAR-2001; 2001WO-US08631.
XX
PR 31-MAR-2000; 2000US-0540217.
PR 23-AUG-2000; 2000US-0649167.
XX
PA (HYSE-) HYSEQ INC.
XX
PI Drmanac RT, Liu C, Tang YT;
XX
DR WPI; 2001-639362/73.
DR N-PSDB; AAS74650.
XX
PT New isolated polynucleotide and encoded polypeptides, useful in
PT diagnostics, forensics, gene mapping, identification of mutations
PT responsible for genetic disorders or other traits and to assess
PT biodiversity -
XX
PS Claim 20; SEQ ID No 40822; 103pp; English.
XX
CC The invention relates to isolated polynucleotide (I) and
CC polypeptide (II) sequences. (I) is useful as hybridisation probes,
CC polymerase chain reaction (PCR) primers, oligomers, and for chromosome
CC and gene mapping, and in recombinant production of (II). The
CC polynucleotides are also used in diagnostics as expressed sequence tags
CC for identifying expressed genes. (I) is useful in gene therapy techniques
CC to restore normal activity of (II) or to treat disease states involving
CC (II). (II) is useful for generating antibodies against it, detecting or
CC quantitating a polypeptide in tissue, as molecular weight markers and as
CC a food supplement. (II) and its binding partners are useful in medical
CC imaging of sites expressing (II). (I) and (II) are useful for treating
CC disorders involving aberrant protein expression or biological activity.
CC The polypeptide and polynucleotide sequences have applications in
CC diagnostics, forensics, gene mapping, identification of mutations
CC responsible for genetic disorders or other traits to assess biodiversity
CC and to produce other types of data and products dependent on DNA and
CC amino acid sequences. ABG00010-ABG30377 represent novel human
CC diagnostic amino acid sequences of the invention.
CC Note: The sequence data for this patent did not appear in the printed
CC specification, but was obtained in electronic format directly from WIPO
CC at ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 506 AA;

Query Match 6.9%; Score 97.5; DB 22; Length 506;
Best Local Similarity 20.7%; Pred. No. 1;
Matches 62; Conservative 41; Mismatches 100; Indels 97; Gaps 14;

```
Qy           1 MG-LPGLFCLAVL---AASSFSKAREEEITPVVSIAYKVLEVFPKGRWVLITCCAPQP-- 54
               || || |  ||       :|:  :  :::  |            ||  :|| |    |
Db           1 MGFLPKLLLLASFFPAGQASWGVSSPQDVQGV-----------KGSCLLIPCIFSFPAD 48

Qy          55 ---PPPIT----YSLCGTKNI-------KVAKKVVKTHEP---ASFNLNVTLKS------ 91
                   |  ||     |   | : :       :|   ::|  :|     |:|    :
Db          49 VEVPDGITAIWYYDYSGQRRVFMGNPEHRVCNLLLKDLQPEDSGSYNFRFEISEVNRWSD 108

Qy          92 -SPDLLTYFCRASSTSGAHVDSARLQMHWELWSKPV-----------SELRANFTLQDR 138
                 |:|   |: |  | |:::  : | |:   : :            ||:        |
Db         109 VKGTLVTVTARSLSPPGRHLETLHMAMSWQDHGRILRCQLSVANHRAQSEIHLQVKYAPR 168

Qy         139 GA------------GPRVEMICQASSGSPPITNSLIGKDGQVHLQQRP--CHRQPANFS 183
               |            |  | : || :|  | :::    ||| | || :    |   | :|
Db         169 GVKILLSPSGRNILPGELVTLTCQVNSSYPAVSSIKWLKDG-VRLQTKTGVLHLPQAAWS 227

Qy         184 FLPSQTSDWFWCQAANNANVQHSALTVVPPGGDQKMEDWQGPLESPILALPLYRSTRRLS 243
                 :  : ||| |                    | | || ::| :: :  ::|
Db         228 -----DAGVYTCQAENGV--------------------GSLVSPPISLHIFMAEVQVS 260
```

```
RESULT 42
AAR39741
ID   AAR39741 standard; Protein; 547 AA.
XX
AC   AAR39741;
XX
DT   25-MAR-2003  (updated)
DT   25-JAN-1994  (first entry)
XX
DE   ICAM-R (Intercellular adhesion molecule R).
XX
KW   ICAM-R; autoimmunity; inflammation; arthritis; glomerulonephritis;
KW   transplant rejection.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Region          1..29
FT                   /label= putative leader peptide.
FT   Domain          43..100
FT                   /label= Immunoglobulin-like domain.
FT   Domain          139..190
FT                   /label= Immunoglobulin like domain.
FT   Domain          241..294
FT                   /label= Immunoglobulin like domain.
FT   Domain          336..375
FT                   /label= Immunoglobulin like domain.
FT   Domain          423..462
FT                   /label= Immunoglobulin like domain.
FT   Modified-site   42
FT                   /label= Potential N-glycosylation site.
FT   Modified-site   84
FT                   /label= Potential N-glycosylation site.
FT   Modified-site   87
FT                   /label= Potential N-glycosylation site.
FT   Modified-site   101
FT                   /label= Potential N-glycosylation site.
FT   Modified-site   110
FT                   /label= Potential N-glycosylation site.
FT   Modified-site   134
FT                   /label= Potential N-glycosylation site.
FT   Modified-site   206
FT                   /label= Potential N-glycosylation site.
FT   Modified-site   264
FT                   /label= Potential N-glycosylation site.
FT   Modified-site   295
FT                   /label= Potential N-glycosylation site.
FT   Modified-site   308
FT                   /label= Potential N-glycosylation site.
FT   Modified-site   320
FT                   /label= Potential N-glycosylation site.
FT   Modified-site   363
FT                   /label= Potential N-glycosylation site.
FT   Modified-site   389
FT                   /label= Potential N-glycosylation site.
FT   Region          486..510
FT                   /label= Putative transmembrane region.
XX
PN   WO9314776-A1.
XX
PD   05-AUG-1993.
XX
PF   26-JAN-1993;   93WO-US00787.
XX
PR   27-JAN-1992;   92US-0827689.
PR   26-MAY-1992;   92US-0889724.
PR   05-JUN-1992;   92US-0894061.
PR   22-JAN-1993;   93US-0009266.
XX
PA   (ICOS-) ICOS CORP.
XX
PI   Gallatin WM,  Vazeux R;
XX
DR   WPI; 1993-258372/32.
DR   N-PSDB; AAQ46991.
XX
PT   DNA encoding new human inter-cellular adhesion molecule
PT   polypeptide (ICAM-R) - useful for treating immune and
PT   inflammatory diseases, tumours and viral infection e.g. HIV
XX
PS   Claim 12; Figure 1(A-G); 126pp; English.
XX
CC   ICAM-R polypeptides can be used in the modulation of immune cell
CC   activation/proliferation as competitve inhibitors or stimulatory
CC   agents of inter- and intracellular ligand/receptor binding
CC   reactions involving ICAM-R.  ICAM-R and related products can be
CC   used for the treatment of conditions resulting from a response
CC   of the non-specific immune response in a mammal. e.g. adult
CC   repiratory distress syndrome, acute glomerulonephritis, reactive
CC   arthritis, stroke etc, and conditions resulting from a response
CC   of the specific immune system in a mammal e.g. psoriasis,
CC   organ/transplant rejection and autoimmune diseases.  The ICAM-R
CC   products can also be used for monitoring and treating asthma,
CC   tumour growth and/or metastasis and viral infection.
CC   (Updated on 25-MAR-2003 to correct PN field.)
XX
SQ   Sequence   547 AA;

  Query Match             6.9%;  Score 97.5;  DB 14;  Length 547;
  Best Local Similarity   21.0%;  Pred. No. 1.1;
  Matches   50;  Conservative   41;  Mismatches   92;  Indels   55;  Gaps   11;

Qy         38 VFPKGRWVLITCC-------------APQPPPPI------TYSLCGT---KNIKVAKKVV 75
              ::|:  | |: ||                :|  |:       :  | |    : |:| :
Db          9 LWPRACWTLLVCCLLTPGVQGQEFLLRVEPQNPVLSAGGSLFVNCSTDCPSSEKIALETS 68

Qy         76 KTHEP-------ASFNLNVTLKSSPDLLTYFCRASSTSG-AHVDSARLQMHWEL-----W 122
              : |         |:|||:    :|  | : :|  |  :| :::    |    ||     |
Db         69 LSKELVASGMGWAAFNLSNVTGNSRILCSVYCNGSQITGSSNITVYGLPERVELAPLPPW 128

Qy        123 SKPVSELRANFTLQDRGAGPRVEMICQASSGSPPITNSLIGKDGQVHLQQRPCHRQPANF 182
              :|| :   ||||:           ||   |||  : :::    :  | ::|   :||
Db        129 -QPVGQ---NFTLR-----------CQVEGGSPRTSLTVVLLRWEEELSRQPAVEEPAEV 173

Qy        183 SFLPSQTSD----WFWCQAANNANVQHSALTVVPPGGDQKMEDWQGPLESPILALPLY 236
              :    : |     | |:  :   |  |  |     :::  :  |:  | |  | :
Db        174 TATVLASRDDHGAPFSCRTELDMQPQGLGL-FVNTSAPRQLRTFVLPVTPPRLVAPRF 230


RESULT 43
AAW76118
ID   AAW76118 standard; Protein; 547 AA.
XX
AC   AAW76118;
XX
DT   20-NOV-1998  (first entry)
XX
DE   Human ICAM-R protein.
XX
KW   Intercellular adhesion molecule; ICAM-R; human; modulator; 14.3.3 family;
KW   HS1-beta; tubulin; inhibitor; stimulator; effector; immune response;
KW   inflammation; disorder; T cell activation; macrophage; Crohn's disease;
KW   adult respiratory distress syndrome; stroke; multiple sclerosis; asthma;
KW   rheumatoid arthritis; tumour growth; human immune deficiency virus;
KW   infection; diabetes; graft vs. host disease; passive immunisation.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Peptide         1..29
FT                   /label= signal
FT   Protein         30..547
FT                   /label= ICAM-R
FT                   /note= "intercellular adhesion molecule"
```

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XX
PN   US5773218-A.
XX
PD   30-JUN-1998.
XX
PF   07-JUN-1995;   95US-0482882.
XX
PR   05-AUG-1994;   94US-0286754.
PR   27-JAN-1992;   92US-0827689.
PR   26-MAY-1992;   92US-0889724.
PR   05-JUN-1992;   92US-0894061.
PR   22-JAN-1993;   93US-0009266.
PR   26-JAN-1993;   93WO-US00787.
PR   05-AUG-1993;   93US-0102852.
PR   07-JUN-1995;   95US-0482882.
XX
PA   (ICOS-) ICOS CORP.
XX
PI   Gallatin WM,  Vazeux R;
XX
DR   WPI; 1998-386989/33.
DR   N-PSDB; AAV56348.
XX
PT   Identifying compounds that modulate interaction of intercellular
PT   adhesion molecule R - with ligands HS1-beta and tubulin using
PT   two-hybrid assay, useful for treating inflammation, T cell
PT   activation etc.
XX
PS   Disclosure; Fig 1A-G; 108pp; English.
XX
CC   This sequence represents a novel human intercellular adhesion molecule,
CC   ICAM-R. This sequence is used in a method which investigates modulators
CC   of the interaction between ICAM-R and the 14.3.3 family member HS1-beta
CC   and tubulin. An anti-ICAM-R antibody optionally coupled to toxin or
CC   radionuclide, or an ICAM-R peptide, can block, inhibit or stimulate
CC   ligand/receptor interactions involving ICAM-R, particularly its effector
CC   functions involved in (non)specific immune responses. ICAM-R related
CC   agents may be used to treat or monitor inflammation, disorders involving
CC   T cell activation or macrophages, e.g. adult respiratory distress
CC   syndrome, stroke, Crohn's disease, multiple sclerosis, rheumatoid
CC   arthritis, asthma, tumour growth, human immune deficiency virus
CC   infection, diabetes, graft vs. host disease and many others. Antibodies
CC   may also be used for passive immunisation, for purifying, detecting or
CC   quantifying ICAM-R and for identifying ICAM-R expressing cells.
XX
SQ   Sequence   547 AA;

  Query Match             6.9%;  Score 97.5;  DB 19;  Length 547;
  Best Local Similarity   21.0%;  Pred. No. 1.1;
  Matches   50;  Conservative   41;  Mismatches   92;  Indels   55;  Gaps   11;

Qy         38 VFPKGRWVLITCC-------------APQPPPPI------TYSLCGT---KNIKVAKKVV 75
              ::|:  | |: ||               :|  |:       :  | |    : |:| :
Db          9 LWPRACWTLLVCCLLTPGVQGQEFLLRVEPQNPVLSAGGSLFVNCSTDCPSSEKIALETS 68

Qy         76 KTHEP-------ASFNLNVTLKSSPDLLTYFCRASSTSG-AHVDSARLQMHWEL-----W 122
               : |        |:|||:    :|  | : :|  |  :| :::    |    ||     |
Db         69 LSKELVASGMGWAAFNLSNVTGNSRILCSVYCNGSQITGSSNITVYGLPERVELAPLPPW 128

Qy        123 SKPVSELRANFTLQDRGAGPRVEMICQASSGSPPITNSLIGKDGQVHLQQRPCHRQPANF 182
              :|| :   ||||:           ||   |||  : :::    :  | ::|   :||
Db        129 -QPVGQ---NFTLR----------CQVEGGSPRTSLTVVLLRWEEELSRQPAVEEPAEV 173

Qy        183 SFLPSQTSD----WFWCQAANNANVQHSALTVVPPGGDQKMEDWQGPLESPILALPLY 236
              :    : |      | |:   :   |   |  |     ::: :  |: | |  | :
Db        174 TATVLASRDDHGAPFSCRTELDMQPQGLGL-FVNTSAPRQLRTFVLPVTPPRLVAPRF 230


RESULT 44
AAW71252
ID   AAW71252 standard; Protein; 547 AA.
XX
AC   AAW71252;
XX
DT   25-MAR-2003  (updated)
DT   18-NOV-1998  (first entry)
XX
DE   Human intercellular adhesion molecule-R (ICAM-R).
XX
KW   Human; ICAM-R; intercellular adhesion molecule; adhesion; treatment;
KW   inflammatory condition; asthma; tumour growth; metastasis;
KW   viral infection; ss.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Peptide         1..29
FT                   /note= "signal peptide"
FT   Protein         30..518
FT                   /note= "mature protein"
FT   Domain          30..119
FT                   /note= "putative immunoglobulin-like domain"
FT   Domain          120..216
FT                   /note= "putative immunoglobulin-like domain"
FT   Domain          217..314
FT                   /note= "putative immunoglobulin-like domain"
FT   Domain          315..416
FT                   /note= "putative immunoglobulin-like domain"
FT   Domain          417..485
FT                   /note= "putative immunoglobulin-like domain"
FT   Region          486..510
FT                   /note= "hydrophobic "transmembrane" region"
FT   Modified-site   52
FT                   /note= "potential N-linked glycosylation site"
FT   Modified-site   84
FT                   /note= "potential N-linked glycosylation site"
FT   Modified-site   87
FT                   /note= "potential N-linked glycosylation site"
FT   Modified-site   101
FT                   /note= "potential N-linked glycosylation site"
FT   Modified-site   110
FT                   /note= "potential N-linked glycosylation site"
FT   Modified-site   134
FT                   /note= "potential N-linked glycosylation site"
FT   Modified-site   206
FT                   /note= "potential N-linked glycosylation site"
FT   Modified-site   264
FT                   /note= "potential N-linked glycosylation site"
FT   Modified-site   320
FT                   /note= "potential N-linked glycosylation site"
FT   Modified-site   453
FT                   /note= "potential N-linked glycosylation site"
FT   Modified-site   459
FT                   /note= "potential N-linked glycosylation site"
XX
PN   US5811517-A.
XX
PD   22-SEP-1998.
XX
PF   07-JUN-1995;   95US-0483389.
XX
PR   05-AUG-1994;   94US-0286754.
PR   26-JAN-1993;   93WO-US00787.
PR   27-JAN-1992;   92US-0827689.
PR   26-MAY-1992;   92US-0889724.
PR   05-JUN-1992;   92US-0894061.
PR   22-JAN-1993;   93US-0009266.
PR   05-AUG-1993;   93US-0102852.
XX
PA   (ICOS-) ICOS CORP.
XX
PI   Gallatin WM,  Vazeux R;
XX
DR   WPI; 1998-530940/45.
DR   N-PSDB; AAV54826.
XX
```

```
PT   DNA encoding mutant ICAM-R poly:peptide(s) - useful for diagnosis
PT   and treatment of cell adhesion based disease conditions e.g.
PT   inflammation or asthma
XX
PS   Claim 1; Fig 1A-G; 111pp; English.
XX
CC   The present sequence represents human ICAM-R (intercellular adhesion
CC   molecule-R). ICAMs are polypeptides that are expressed on blood vessel
CC   endothelial cell surfaces and are involved in the adhesion events in
CC   various conditions. ICAM-R variants (see AAW71264-69) can be used to
CC   treat or monitor inflammatory conditions involving specific or
CC   nonspecific immune responses, asthma, tumour growth and/or metastasis and
CC   viral infections. The ICAM variants are produced recombinantly, from
CC   expression libraries of mutated sequences, and the ones that are claimed
CC   are the ones that have been found to be especially involved in adhesion
CC   events. They can also be used to raise antibodies, also for use as
CC   therapeutic or diagnostic agents.
CC   (Updated on 25-MAR-2003 to correct PR field.)
XX
SQ   Sequence   547 AA;

  Query Match             6.9%;  Score 97.5;  DB 19;  Length 547;
  Best Local Similarity   21.0%;  Pred. No. 1.1;
  Matches   50;  Conservative   41;  Mismatches   92;  Indels   55;  Gaps   11;

Qy         38 VFPKGRWVLITCC-------------APQPPPPI------TYSLCGT---KNIKVAKKVV 75
              ::|:  | |: ||              :|  |:        :  | |    : |:| :
Db          9 LWPRACWTLLVCCLLTPGVQGQEFLLRVEPQNPVLSAGGSLFVNCSTDCPSSEKIALETS 68

Qy         76 KTHEP-------ASFNLNVTLKSSPDLLTYFCRASSTSG-AHVDSARLQMHWEL-----W 122
               : |          |:|||:    :|  | : :|  |  :| :::     |     ||      |
Db         69 LSKELVASGMGWAAFNLSNVTGNSRILCSVYCNGSQITGSSNITVYGLPERVELAPLPPW 128

Qy        123 SKPVSELRANFTLQDRGAGPRVEMICQASSGSPPITNSLIGKDGQVHLQQRPCHRQPANF 182
              :|| :   ||||:             ||   |||  : :::    :  | ::|   :||
Db        129 -QPVGQ---NFTLR-----------CQVEGGSPRTSLTVVLLRWEEELSRQPAVEEPAEV 173

Qy        183 SFLPSQTSD----WFWCQAANNANVQHSALTVVPPGGDQKMEDWQGPLESPILALPLY 236
              :     : |     | |:   :  |   |  |     :::  :  |:  | |  | :
Db        174 TATVLASRDDHGAPFSCRTELDMQPQGLGL-FVNTSAPRQLRTFVLPVTPPRLVAPRF 230


RESULT 45
AAW59005
ID   AAW59005 standard; Protein; 547 AA.
XX
AC   AAW59005;
XX
DT   04-AUG-1998  (first entry)
XX
DE   Human ICAM-R protein.
XX
KW   ICAM-4; ICAM-R; intercellular adhesion molecule; rat; neuron-specific;
KW   promoter; hippocampus; antibody; cell-cell interaction; ss.
XX
OS   Homo sapiens.
XX
PN   US5753502-A.
XX
PD   19-MAY-1998.
XX
PF   06-JUN-1996;   96US-0656984.
XX
PR   06-JUN-1996;   96US-0656984.
PR   05-AUG-1993;   93US-0102852.
PR   18-MAY-1994;   94US-0245295.
PR   07-JUN-1995;   95US-0481130.
XX
PA   (ICOS-) ICOS CORP.
XX
PI   Gallatin WM,  Kilgannon PD;
XX
DR   WPI; 1998-311408/27.
DR   N-PSDB; AAV11657.
XX
PT   ICAM-4 gene promoter - for directing gene expression in neuronal
PT   cells
XX
PS   Disclosure; Col 41-46; 47pp; English.
XX
CC   This sequence represents a human neuron-specific intercellular
CC   adhesion molecule, ICAM-R, which is used in a method to isolate a
CC   human ICAM-4 gene promoter. This promoter specifically promotes gene
CC   transcription in neuronal cells especially hippocampal cells. Recombinant
CC   proteins can also be used to raise antibodies against ICAM-4. The ICAM-4
CC   DNA sequences and its recombinant production are new tools in the
CC   elucidation of cell-cell interactions.
XX
SQ   Sequence   547 AA;

  Query Match             6.9%;  Score 97.5;  DB 19;  Length 547;
  Best Local Similarity   21.0%;  Pred. No. 1.1;
  Matches   50;  Conservative   41;  Mismatches   92;  Indels   55;  Gaps   11;

Qy         38 VFPKGRWVLITCC-------------APQPPPPI------TYSLCGT---KNIKVAKKVV 75
              ::|:  | |: ||              :|  |:        :  | |    : |:| :
Db          9 LWPRACWTLLVCCLLTPGVQGQEFLLRVEPQNPVLSAGGSLFVNCSTDCPSSEKIALETS 68

Qy         76 KTHEP-------ASFNLNVTLKSSPDLLTYFCRASSTSG-AHVDSARLQMHWEL-----W 122
               : |          |:|||:    :|  | : :|  |  :| :::     |     ||      |
Db         69 LSKELVASGMGWAAFNLSNVTGNSRILCSVYCNGSQITGSSNITVYGLPERVELAPLPPW 128

Qy        123 SKPVSELRANFTLQDRGAGPRVEMICQASSGSPPITNSLIGKDGQVHLQQRPCHRQPANF 182
              :|| :   ||||:             ||   |||  : :::    :  | ::|   :||
Db        129 -QPVGQ---NFTLR-----------CQVEGGSPRTSLTVVLLRWEEELSRQPAVEEPAEV 173

Qy        183 SFLPSQTSD----WFWCQAANNANVQHSALTVVPPGGDQKMEDWQGPLESPILALPLY 236
              :     : |     | |:   :  |   |  |     :::  :  |:  | |  | :
Db        174 TATVLASRDDHGAPFSCRTELDMQPQGLGL-FVNTSAPRQLRTFVLPVTPPRLVAPRF 230


RESULT 46
AAW44838
ID   AAW44838 standard; Protein; 547 AA.
XX
AC   AAW44838;
XX
DT   21-JUL-1998  (first entry)
XX
DE   Human ICAM-4 protein.
XX
KW   Rat; intracellular adhesion molecule; ICAM; probe; hybridisation; human;
KW   reverse transcription; RT-PCR; RACE; rapid amplification of cDNA ends;
KW   immunogen; antibody.
XX
OS   Homo sapiens.
XX
PN   US5700658-A.
XX
PD   23-DEC-1997.
XX
PF   18-MAY-1994;   94US-0245295.
XX
PR   18-MAY-1994;   94US-0245295.
PR   27-JAN-1992;   92US-0827689.
PR   26-MAY-1992;   92US-0889724.
PR   05-JUN-1992;   92US-0894061.
PR   22-JAN-1993;   93US-0009266.
PR   05-AUG-1993;   93US-0102852.
XX
PA   (ICOS-) ICOS CORP.
XX
PI   Gallatin WM,  Kilgannon PD;
XX
DR   WPI; 1998-062375/06.
DR   N-PSDB; AAV19328.
```

```
XX
PT   DNA encoding ICAM-4 - useful for transforming cells and producing
PT   recombinant ICAM-4
XX
PS   Example 9; Column 31-36; 30pp; English.
XX
CC   This is the amino acid sequence of the human intracellular adhesion
CC   molecule 4 (ICAM-4) protein.  The gene sequence was initially isolated
CC   from a human P1 library using primers (AAV19345-46) based on the
CC   sequence encoding the domain 3 of the human ICAM-3 protein. The screens
CC   resulted in the isolation of a 7.0 kb BamHI fragment that hybridised
CC   under high stringency conditions with the rat ICAM-4 (AAV19326)
CC   sequence. Cells expressing ICAM-4 can be used  as immunogens for
CC   antibody production and to produce recombinant ICAM-4, which can also be
CC   used for antibody production. The DNA can also be used in hybridisation
CC   assays to detect expression of ICAM-4 in cells.
XX
SQ   Sequence   547 AA;

  Query Match             6.9%;  Score 97.5;  DB 19;  Length 547;
  Best Local Similarity   21.0%;  Pred. No. 1.1;
  Matches   50;  Conservative   41;  Mismatches   92;  Indels   55;  Gaps   11;

Qy         38 VFPKGRWVLITCC-------------APQPPPPI------TYSLCGT---KNIKVAKKVV 75
              ::|:  | |: ||             :|  |:       :  | |    : |:| :
Db          9 LWPRACWTLLVCCLLTPGVQGQEFLLRVEPQNPVLSAGGSLFVNCSTDCPSSEKIALETS 68

Qy         76 KTHEP-------ASFNLNVTLKSSPDLLTYFCRASSTSG-AHVDSARLQMHWEL-----W 122
               : |        |:|||:    :|  | : :|  |  :| :::    |    ||     |
Db         69 LSKELVASGMGWAAFNLSNVTGNSRILCSVYCNGSQITGSSNITVYGLPERVELAPLPPW 128

Qy        123 SKPVSELRANFTLQDRGAGPRVEMICQASSGSPPITNSLIGKDGQVHLQQRPCHRQPANF 182
              :|| :   ||||:           ||   |||  : :::    :  | ::|   :||
Db        129 -QPVGQ---NFTLR-----------CQVEGGSPRTSLTVVLLRWEEELSRQPAVEEPAEV 173

Qy        183 SFLPSQTSD----WFWCQAANNANVQHSALTVVPPGGDQKMEDWQGPLESPILALPLY 236
              :    : |    | |:   :   |   |  |     :::  :  |:  | |  | :
Db        174 TATVLASRDDHGAPFSCRTELDMQPQGLGL-FVNTSAPRQLRTFVLPVTPPRLVAPRF 230


RESULT 47
AAY00779
ID   AAY00779 standard; Protein; 547 AA.
XX
AC   AAY00779;
XX
DT   14-MAY-1999  (first entry)
XX
DE   Human ICAM-R protein sequence.
XX
KW   ICAM; immunoglobulin-like loop; intercellular adhesion molecule receptor;
KW   alpha d/CD18; antibody; immunisation; inflammatory response; asthma;
KW   tumour growth; viral infection; therapy.
XX
OS   Homo sapiens.
XX
PN   US5880268-A.
XX
PD   09-MAR-1999.
XX
PF   07-JUN-1995;   95US-0483932.
XX
PR   05-AUG-1994;   94US-0286754.
PR   27-JAN-1992;   92US-0827689.
PR   26-MAY-1992;   92US-0889724.
PR   05-JUN-1992;   92US-0894061.
PR   22-JAN-1993;   93US-0009266.
PR   26-JAN-1993;   93WO-US00787.
PR   05-AUG-1993;   93US-0102852.
PR   07-JUN-1995;   95US-0483932.
XX
PA   (ICOS-) ICOS CORP.
XX
PI   Gallatin WM,  Vazeux R;
XX
DR   WPI; 1999-204041/17.
DR   N-PSDB; AAX21855.
XX
PT   New intercellular adhesion molecule receptor (ICAM-R) specific
PT   antibodies - useful for modulating ligand/receptor binding and
PT   biological activities involving ICAM-R, especially those of the
PT   specific and non-specific immune systems
XX
PS   Example 5; Fig 1; 108pp; English.
XX
CC   This sequence represents the human ICAM-R protein.
CC   The invention relates to antibodies (Ab) which bind specifically
CC   to the intercellular adhesion molecule receptor (ICAM-R), inhibiting the
CC   interaction between ICAM-R and alpha d/CD18. Abs with specific ICAM-R
CC   binding are useful in compositions for immunisation, and for purifying
CC   ICAM-R polypeptides and identifying cells expressing ICAM-R on their cell
CC   surface, modulating ligand/receptor binding and biological activities
CC   involving ICAM-R, especially inflammatory responses of the specific
CC   immune system, the non-specific immune system, monitoring and treating
CC   asthma, tumour growth, and/or metastasis, and viral infection (e.g. HIV
CC   infection). In particular diseases involving an essential T cell
CC   activation (e.g. asthma, psoriasis, diabetes, graft vs. host disease,
CC   tissue transplant rejection, and multiple sclerosis) may be treated with
CC   anti-ICAM-R antibodies. The Abs specifically bind to and identify ICAM-R
CC   and disrupt ICAM-R to cell adhesion molecule, especially alpha d/CD18
CC   binding.
XX
SQ   Sequence   547 AA;

  Query Match             6.9%;  Score 97.5;  DB 20;  Length 547;
  Best Local Similarity   21.0%;  Pred. No. 1.1;
  Matches   50;  Conservative   41;  Mismatches   92;  Indels   55;  Gaps   11;

Qy         38 VFPKGRWVLITCC-------------APQPPPPI------TYSLCGT---KNIKVAKKVV 75
              ::|:  | |: ||             :|  |:       :  | |    : |:| :
Db          9 LWPRACWTLLVCCLLTPGVQGQEFLLRVEPQNPVLSAGGSLFVNCSTDCPSSEKIALETS 68

Qy         76 KTHEP-------ASFNLNVTLKSSPDLLTYFCRASSTSG-AHVDSARLQMHWEL-----W 122
               : |        |:|||:    :|  | : :|  |  :| :::    |    ||     |
Db         69 LSKELVASGMGWAAFNLSNVTGNSRILCSVYCNGSQITGSSNITVYGLPERVELAPLPPW 128

Qy        123 SKPVSELRANFTLQDRGAGPRVEMICQASSGSPPITNSLIGKDGQVHLQQRPCHRQPANF 182
              :|| :   ||||:           ||   |||  : :::    :  | ::|   :||
Db        129 -QPVGQ---NFTLR-----------CQVEGGSPRTSLTVVLLRWEEELSRQPAVEEPAEV 173

Qy        183 SFLPSQTSD----WFWCQAANNANVQHSALTVVPPGGDQKMEDWQGPLESPILALPLY 236
              :    : |    | |:   :   |   |  |     :::  :  |:  | |  | :
Db        174 TATVLASRDDHGAPFSCRTELDMQPQGLGL-FVNTSAPRQLRTFVLPVTPPRLVAPRF 230


RESULT 48
AAW81440
ID   AAW81440 standard; Protein; 547 AA.
XX
AC   AAW81440;
XX
DT   17-FEB-1999  (first entry)
XX
DE   Human intercellular adhesion molecule polypeptide (ICAM-R).
XX
KW   Intercellular adhesion molecule polypeptide; ICAM-R; humanised; ICR 1.1;
KW   ICR 8.1; monoclonal antibody; therapeutic; inflammatory; asthma; tumour;
KW   graft-versus-host disease; viral infection; toxin; radionuclide;
KW   neovascularisation site.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Peptide          1..29
FT                    /note= "putative leader sequence"
FT   Protein          30..547
```

```
FT                   /note= "mature protein"
FT   Modified-site   52
FT                   /note= "potential N-glycosylation site"
FT   Region          53..100
FT                   /note= "putative immunoglobulin-like loop region"
FT   Modified-site   84
FT                   /note= "potential N-glycosylation site"
FT   Modified-site   87
FT                   /note= "potential N-glycosylation site"
FT   Modified-site   101
FT                   /note= "potential N-glycosylation site"
FT   Modified-site   110
FT                   /note= "potential N-glycosylation site"
FT   Modified-site   134
FT                   /note= "potential N-glycosylation site"
FT   Region          139..190
FT                   /note= "putative immunoglobulin-like loop region"
FT   Modified-site   206
FT                   /note= "potential N-glycosylation site"
FT   Modified-site   264
FT                   /note= "potential N-glycosylation site"
FT   Region          241..294
FT                   /note= "putative immunoglobulin-like loop region"
FT   Modified-site   295
FT                   /note= "potential N-glycosylation site"
FT   Modified-site   307
FT                   /note= "potential N-glycosylation site"
FT   Modified-site   320
FT                   /note= "potential N-glycosylation site"
FT   Region          336..375
FT                   /note= "putative immunoglobulin-like loop region"
FT   Modified-site   363
FT                   /note= "potential N-glycosylation site"
FT   Modified-site   389
FT                   /note= "potential N-glycosylation site"
FT   Region          423..462
FT                   /note= "putative immunoglobulin-like loop region"
FT   Modified-site   453
FT                   /note= "potential N-glycosylation site"
FT   Modified-site   457
FT                   /note= "potential N-glycosylation site"
FT   Region          486..510
FT                   /note= "putative hydrophobic transmembrane region"
FT   Region          511..547
FT                   /note= "putative carboxy terminal cytoplasmic region"
XX
PN   US5837822-A.
XX
PD   17-NOV-1998.
XX
PF   07-JUN-1995;   95US-0487113.
XX
PR   07-JUN-1995;   95US-0487113.
PR   27-JAN-1992;   92US-0827689.
PR   26-MAY-1992;   92US-0889724.
PR   05-JUN-1992;   92US-0894061.
PR   22-JAN-1993;   93US-0009266.
PR   26-JAN-1993;   93WO-US00787.
PR   05-AUG-1993;   93US-0102852.
XX
PA   (ICOS-) ICOS CORP.
XX
PI   Gallatin WM,  Vazeux R;
XX
DR   WPI; 1999-023535/02.
DR   N-PSDB; AAV69125.
XX
PT   Humanised antibodies specific for intercellular adhesion molecule
PT   polypeptide - useful for therapeutic or diagnostic purposes
XX
PS   Example 5; Fig 1A-G; 116pp; English.
XX
CC   This represents the amino acid sequence of human intercellular adhesion
CC   molecule polypeptide (ICAM-R). The invention relates to humanised ICR 1.1
CC   and ICR 8.1 antibodies targeted to the ICAM-R polypeptide. Antibodies
CC   specific for ICAM's are potentially useful as therapeutic compounds, for
CC   treating e.g. immune-mediated inflammatory conditions (e.g. graft-versus-
CC   host disease), asthma, tumours or viral infections. Monoclonal antibodies
CC   specific for ICAM-R, or their conjugates formed with e.g. toxins or
CC   radionuclides are useful for therapeutically targeting or detecting
CC   neovascularisation sites.
XX
SQ   Sequence   547 AA;

  Query Match             6.9%;  Score 97.5;  DB 20;  Length 547;
  Best Local Similarity   21.0%;  Pred. No. 1.1;
  Matches   50;  Conservative   41;  Mismatches   92;  Indels   55;  Gaps   11;

Qy         38 VFPKGRWVLITCC------------APQPPPPI------TYSLCGT---KNIKVAKKVV 75
              ::|:  | |: ||                :|  |:       :  | |    : |:| :
Db          9 LWPRACWTLLVCCLLTPGVQGQEFLLRVEPQNPVLSAGGSLFVNCSTDCPSSEKIALETS 68

Qy         76 KTHEP-------ASFNLNVTLKSSPDLLTYFCRASSTSG-AHVDSARLQMHWEL-----W 122
               : |        |:|||:    :|  | : :|  |  :| :::    |    ||     |
Db         69 LSKELVASGMGWAAFNLSNVTGNSRILCSVYCNGSQITGSSNITVYGLPERVELAPLPPW 128

Qy        123 SKPVSELRANFTLQDRGAGPRVEMICQASSGSPPITNSLIGKDGQVHLQQRPCHRQPANF 182
               :|| :   ||||:              ||   |||  : :::    :  | ::|   :||
Db        129 -QPVGQ---NFTLR-----------CQVEGGSPRTSLTVVLLRWEEELSRQPAVEEPAEV 173

Qy        183 SFLPSQTSD----WFWCQAANNANVQHSALTVVPPGGDQKMEDWQGPLESPILALPLY 236
              :     : |    | |:   :   |   |  |     :::  :  |:  | |  | :
Db        174 TATVLASRDDHGAPFSCRTELDMQPQGLGL-FVNTSAPRQLRTFVLPVTPPRLVAPRF 230


RESULT 49
AAB13036
ID   AAB13036 standard; Protein; 547 AA.
XX
AC   AAB13036;
XX
DT   19-DEC-2000  (first entry)
XX
DE   Human ICAM-R protein sequence.
XX
KW   Anti-human immunodeficiency virus; HIV; cytostatic; ICAM-R; ARDS; stroke;
KW   intercellular adhesion molecule; immunoglobulin heavy chain; septicaemia;
KW   inflammatory conditions; glomerulonephritis; arthritis; dermatosis;
KW   haemodialysis; leukapheresis; ulcerative colitis; Crohn's disease;
KW   necrotising enterocolitis; atherosclerosis; psoriasis, asthma;
KW   transplant rejection; diabetes; tumour.
XX
OS   Homo sapiens.
XX
PN   US6100383-A.
XX
PD   08-AUG-2000.
XX
PF   07-JUN-1995;   95US-0475680.
XX
PR   05-AUG-1994;   94US-0286754.
PR   26-JAN-1993;   93WO-US00787.
PR   27-JAN-1992;   92US-0827689.
PR   26-MAY-1992;   92US-0889724.
PR   05-JUN-1992;   92US-0894061.
PR   22-JAN-1993;   93US-0009266.
PR   05-AUG-1993;   93US-0102852.
XX
PA   (ICOS-) ICOS CORP.
XX
PI   Gallatin WM,  Vazeux R;
XX
DR   WPI; 2000-542449/49.
DR   N-PSDB; AAA97090.
XX
PT   Hybrid fusion proteins comprising intercellular adhesion molecule or
```

```
PT   its variants useful, for treating inflammatory conditions, Crohn's
PT   disease, atherosclerosis and diabetes -
XX
PS   Claim 1; Figure 1; 109pp; English.
XX
CC   This invention relates to a hybrid fusion protein comprising an
CC   intercellular adhesion molecule (ICAM-R) amino acid fragment at its
CC   amino terminus and a constant domain of an immunoglobulin heavy chain at
CC   its carboxy terminus. ICAM-R polypeptides are useful for treating and
CC   monitoring inflammatory conditions such as adult respiratory distress
CC   syndrome, multiple organ injury syndrome secondary to septicaemia or
CC   trauma, reperfusion injury of tissue, acute glomerulonephritis, reactive
CC   arthritis, dermatosis, stroke, thermal injury, haemodialysis,
CC   leukapheresis, ulcerative colitis, Crohn's disease, necrotising
CC   enterocolitis, granulocyte transfusion associated syndrome,
CC   atherosclerosis and cytokine induced toxicity. ICAM-R polypeptides are
CC   also useful for treating conditions resulting from a response of the
CC   specific immune system in a mammal e.g. psoriasis, organ/tissue
CC   transplant rejection and autoimmune diseases including Raynaud's
CC   syndrome, autoimmune thyroiditis, multiple sclerosis, rheumatoid
CC   arthritis, diabetes and lupus erythematosus. ICAM-R products and ICAM-R
CC   related products are also useful in monitoring and treating asthma,
CC   tumour growth and/or metastasis, and viral infection (e.g. HIV
CC   infection). Sequences AAA97090 and AAB13036 represent the human ICAM-R
CC   DNA and protein sequences. Sequences AAA97091-A97112 represent ICAM-R
CC   DNA fragments, PCR primers and probes, all used in the identification of
CC   the ICAM-R DNA sequence. AAA97113-A97123 and AAA97129-A97152 represent
CC   primers used in the production of humanised anti-ICAM-R antibody ICR-8.1,
CC   and fragments of the humanised antibody. Sequences AAA97124-A97128,
CC   AAA97132, AAA97144 represent ICR-8.1 sequences. Sequences AAA97153-A97176
CC   excluding AAA97155-A97156 represent primers used in the production of
CC   humanised anti-ICAM-R antibody ICR-1.1, and fragments of the humanised
CC   antibody. Sequences AAA97155-A97156 and AAB13047-B13048 represent murine
CC   ICR-1.1 sequences. DNA and peptide sequences used in the production of
CC   the chimeric protein of the invention include AAA97177-A97188 and
CC   AAB13050-B13051.
XX
SQ   Sequence   547 AA;

  Query Match             6.9%;  Score 97.5;  DB 21;  Length 547;
  Best Local Similarity   21.0%;  Pred. No. 1.1;
  Matches   50;  Conservative   41;  Mismatches   92;  Indels   55;  Gaps   11;

Qy         38 VFPKGRWVLITCC-------------APQPPPPI------TYSLCGT---KNIKVAKKVV 75
              ::|:  | |: ||              :|  |:       :  | |    : |:| :
Db          9 LWPRACWTLLVCCLLTPGVQGQEFLLRVEPQNPVLSAGGSLFVNCSTDCPSSEKIALETS 68

Qy         76 KTHEP-------ASFNLNVTLKSSPDLLTYFCRASSTSG-AHVDSARLQMHWEL-----W 122
               : |        |:|||:    :|  | : :|  |  :| :::    |    ||     |
Db         69 LSKELVASGMGWAAFNLSNVTGNSRILCSVYCNGSQITGSSNITVYGLPERVELAPLPPW 128

Qy        123 SKPVSELRANFTLQDRGAGPRVEMICQASSGSPPITNSLIGKDGQVHLQQRPCHRQPANF 182
              :|| :   ||||:          ||   |||  : :::    :  | ::|   :||
Db        129 -QPVGQ---NFTLR----------CQVEGGSPRTSLTVVLLRWEEELSRQPAVEEPAEV 173

Qy        183 SFLPSQTSD----WFWCQAANNANVQHSALTVVPPGGDQKMEDWQGPLESPILALPLY 236
              :    : |    | |:  :   |  |    :::  :  |:  | |  | :
Db        174 TATVLASRDDHGAPFSCRTELDMQPQGLGL-FVNTSAPRQLRTFVLPVTPPRLVAPRF 230


RESULT 50
AAY82435
ID   AAY82435 standard; Protein; 547 AA.
XX
AC   AAY82435;
XX
DT   28-JUN-2000  (first entry)
XX
DE   Human ICAM-R encoding cDNA SEQ ID NO:1.
XX
KW   Human; ICAM-R; chromosome 19; intracellular adhesion molecule receptor;
KW   CAM; ICAM-1; ICAM-2; humanised; antibody; mutagenic; chimeric; vulnerary;
KW   nephropathic; antiarthritic; cerebroprotective; antiulcer; cytostatic;
KW   antiarteriosclerotic; immunosuppressive; antidiabetic; neuroprotective;
KW   antithyroid; dermatological; antiasthmatic; antiviral; antiinflammatory;
KW   anti-HIV; vasotropic; antipsoriatic; immunomodulator; antirheumatic;
KW   cell adhesion mediator; inflammatory condition; immunisation;
KW   immune response.
XX
OS   Homo sapiens.
XX
PN   US6040176-A.
XX
PD   21-MAR-2000.
XX
PF   12-SEP-1996;   96US-0714017.
XX
PR   05-AUG-1994;   94US-0286754.
PR   27-JAN-1992;   92US-0827689.
PR   26-MAY-1992;   92US-0889724.
PR   05-JUN-1992;   92US-0894061.
PR   22-JAN-1993;   93US-0009266.
PR   26-JAN-1993;   93WO-US00787.
PR   05-AUG-1993;   93US-0102852.
XX
PA   (ICOS-) ICOS CORP.
XX
PI   Gallatin WM,  Vazeux R;
XX
DR   WPI; 2000-270138/23.
XX
PT   Novel monoclonal antibody directed against ICAM-R proteins useful for
PT   treating acute glomerulonephritis, ulcerative colitis, psoriasis,
PT   rheumatoid arthritis, diabetes, multiple sclerosis, asthma and viral
PT   infection -
XX
PS   Example 4; Fig 1; 117pp; English.
XX
CC   The present invention describes a monoclonal antibody (MAb) (I),
CC   produced by the hybridoma cell line 81K2F (ATCC HB 11692). Also described
CC   are: (1) a hybridoma cell line 81K2F; and (2) a MAb (II), that competes
CC   with (I) for binding to ICAM-R (intracellular adhesion molecule
CC   receptor) (III). (II) mimics the activity of natural binding proteins
CC   through which intercellular and intracellular activities of (III) are
CC   modulated. (II) is also used for modulating the immune responses. (I) is
CC   used for immunisation as well as for purifying (III). They are also
CC   useful in modulating the ligand/receptor binding biological activity
CC   involving (III) especially those effector functions of (III) involved in
CC   specific and non-specific immune system responses. Inflammatory
CC   conditions which may be treated or monitored with related products of
CC   (III) include conditions resulting from a response of the non-specific
CC   immune system in a mammal e.g. adult respiratory distress syndrome,
CC   multiple organ injury syndrome secondary to septicemia or trauma,
CC   reperfusion injury of tissue, acute glomerulonephritis, reactive
CC   arthritis, stroke, ulcerative colitis and atherosclerosis, and conditions
CC   resulting from a response of the specific immune system in a mammal, e.g.
CC   psoriasis, organ/tissue transplantation rejection, autoimmune diseases
CC   such as autoimmune thyroiditis, multiple sclerosis, rheumatoid arthritis,
CC   diabetes and lupus erythematosus. AAA08236 to AAA08334, and AAY82435 to
CC   AAY82451 represent sequences used in the exemplification of the present
CC   invention.
XX
SQ   Sequence   547 AA;

  Query Match             6.9%;  Score 97.5;  DB 21;  Length 547;
  Best Local Similarity   21.0%;  Pred. No. 1.1;
  Matches   50;  Conservative   41;  Mismatches   92;  Indels   55;  Gaps   11;

Qy         38 VFPKGRWVLITCC-------------APQPPPPI------TYSLCGT---KNIKVAKKVV 75
              ::|:  | |: ||              :|  |:       :  | |    : |:| :
Db          9 LWPRACWTLLVCCLLTPGVQGQEFLLRVEPQNPVLSAGGSLFVNCSTDCPSSEKIALETS 68

Qy         76 KTHEP-------ASFNLNVTLKSSPDLLTYFCRASSTSG-AHVDSARLQMHWEL-----W 122
               : |        |:|||:    :|  | : :|  |  :| :::    |    ||     |
Db         69 LSKELVASGMGWAAFNLSNVTGNSRILCSVYCNGSQITGSSNITVYGLPERVELAPLPPW 128
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Qy        123 SKPVSELRANFTLQDRGAGPRVEMICQASSGSPPITNSLIGKDGQVHLQQRPCHRQPANF 182
Db        129 -QPVGQ---NFTLR-----------CQVEGGSPRTSLTVVLLRWEEELSRQPAVEEPAEV 173

Qy        183 SFLPSQTSD----WFWCQAANNANVQHSALTVVPPGGDQKMEDWQGPLESPILALPLY 236
Db        174 TATVLASRDDHGAPFSCRTELDMQPQGLGL-FVNTSAPRQLRTFVLPVTPPRLVAPRF 230

Search completed: February 5, 2004, 16:27:54
Job time : 45 secs
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